1.6.2 Definitions

Base Station — An entity in the public radio telecommunications system used for radio telecommunications with mobile stations.

Base Station Controller — The control portion of the base station that includes call control logic and interconnections to the MSC, the BTSs that are part of the BS, other BSCs, and BTSs of neighboring BSs for purposes of soft/softer handoff.

Base Transceiver Station — A component of a base station that includes radio equipment. A BTS is sometimes equated with the physical cell site of a wireless network.

Bearer Connection — A connection intended to provide a path for user traffic.

Call Association — The totality of the active communication between the mobile station and the network, including all signaling and transfer of user information.

Cell — The unit of a base station having the ability to radiate in a given geographic area; a "sector" or "face" of a physical radio equipment implementation.

Downlink — The direction of MSC to BS.

Handoff — Handoff is the process by which an air interface circuit between a mobile station and a base station is transferred from the current base station equipment and air interface channel to either a different base station equipment and air interface channel or a different air interface channel on the current base station. The following types of handoff are supported:

1. Hard Handoff: A handoff that requires the mobile station to tune its radio equipment or to reestablish synchronization.

2. Soft Handoff: A handoff that does not require the mobile station to tune its radio equipment or to reestablish synchronization and that uses the same frame selection function (and voice transcoding function, if this is a voice call) in the network for both the old and new air interface channels.

3. Soft Handoff with Pre-Selection: The configuration achieved when a BS internally splits a single forward flow of coded user information from the frame selector to send it to two or more cells controlled by that BS. In the reverse direction, the BS joins the flows of coded user information frames from those cells, selects the best quality frame (preselection), and forwards only that selected frame to the frame selector.

4. Softer Handoff: A handoff involving two or more traffic channels on a call such that in the forward direction the BS splits a single flow of traffic channel frames into two or more forward flows to be sent to the mobile station with the power control combined bit set to indicate that the same reverse power control information is to be used. In the reverse direction the BS combines the traffic channel frames that are received from two or more cells/sectors and forms a single reverse flow from this combination.

Interworking Function The Interworking Function (IWF), used in the context of the this standard, provides a translation of the user traffic on a data call between the fixed network and the air interface.

Logical Channel A logical path that can carry signaling, user traffic, or a combination of the two between two entities such as the network and the mobile station. A logical channel can be instantiated over one or more physical channels. Logical channels may also share physical channels.

Mobile Switching Center The MSC switches MS-originated or MS-terminated traffic. An MSC is usually connected to at least one base station. It may connect to other public networks PSTN, ISDN, etc., other MSCs in the same network, or MSCs in different networks. (It has been referred to as Mobile Telephone Switching Office, MTSO.) It provides the interface for user traffic between the wireless network and other public switched networks, or other MSCs.

Mobility Security Association
A collection of security contexts, between a pair of nodes, which may be applied to Mobile IP protocol messages exchanged between them. Each context indicates an authentication algorithm and mode, a secret (a shared key, or appropriate public/private key pair), and a style of replay protection in use.**Network Identification** The Network Identification (NID) is a number that uniquely identifies a network within a cellular or PCS system.

Packet Control Function An entity in the radio access network that manages the relay of packets between the BS and the PDSN.

Packet Data Session An instance of use of packet data service by a mobile user. A packet data session begins when the user invokes packet data service. A packet data session ends when the user or the network terminates packet data service. During a particular packet data session, the user may change locations but the same IP address is maintained.

Packet Data Serving Node Routes MS originated or MS terminated packet data traffic. A PDSN establishes, maintains and terminates link layer sessions to mobile stations.

Packet Zone Identification The Packet Zone Identification (PZID) is a number that uniquely identifies the Packet Control Function (PCF) coverage area within a particular SID/NID area. The combined SID/NID/PZID triplet is unique to a PCF.

Physical Channel A physical path between the SDU function and the mobile station that consists of any connecting A3 traffic channel(s) and radio channel(s). Depending on the radio technology in use, a physical channel may be in soft handoff between the mobile station and the SDU function.

SDU Function The SDU function (Selection/Distribution Unit function) includes the following functions:

Traffic Handler: This function exchanges traffic bits with the associated vocoder or CDMA RLP function, or is directly connected to the A5 interface.

Signaling Layer 2: This function performs the layer 2 functionality of the air interface signaling protocol and is responsible for the reliable delivery of layer 3 signaling messages between the base station and the mobile station.

Multiplex Sublayer: This function multiplexes and demultiplexes user traffic and signaling traffic for the air interface.

Power Control: This function administrates the forward and reverse link power control in a CDMA system. This function and the channel element provide the power control function for the CDMA operation. As part of this function, it generates or utilizes relevant power control information that is exchanged over the air interface or with the channel element.

Frame Selection/Distribution: This function is responsible for selecting the "best" incoming air interface reverse link frame from the channel elements involved in the soft handoff. It also distributes forward air interface frames to all channel elements involved in a call.

Backhaul Frame Handler: This function demultiplexes the control information and the air interface reverse frame from the frame received over the backhaul network. It also multiplexes the control information and the air interface frames in the forward direction.

External Frame Handler: This function exchanges backhaul frames with channel elements which are remote from the Selector.

Intra-BS Frame Handler: This function exchanges backhaul frames with channel elements involved in intra-BS soft handoff.

Control: This function provides control functions.

Security Parameter Index Security Parameter Index (SPI) is an index identifying a security context between a pair of nodes among the contexts available in the Mobility Security Association. SPI values '0' through '255' are reserved and are not used in any Mobility Security Association.

Service Instance An instance of a higher level communication service between the mobile station user and various other endpoints.

Service Provider Network A network operated by either the home service provider or the visited service provider. The home service provider maintains the customer business relationship with the user. The visited service provider provides access services through the establishment of a service agreement with the home service provider.

Serving Network The network that provides access services to the user.

Signaling Connection A connection intended to provide a path for signaling traffic.

Source Base Station The BS that is in control of the call is designated the source BS and remains the source BS until it is removed from control of the call.

System Identification The System Identification (SID) is a number that uniquely identifies a network within a cellular or PCS system.

Target Base Station	Any BS that supports the call other than the source BS is designated as a target BS.
Transcoder	A device that transforms signals from one type of digital representation to another.
Uplink	The direction of BS to MSC.

1.7.2 Interface Reference Model

The interfaces defined in this standard are described below.

A1 The A1 interface carries signaling information between the Call Control (CC) and Mobility Management (MM) functions of the MSC and the call control component of the BS (BSC).

A2 The A2 interface carries 64/56 kbps PCM information (voice/data) or 64 kbps Unrestricted Digital Information (UDI, for ISDN) between the Switch component of the MSC and one of the following:

the channel element component of the BS (in the case of an analog air interface), or

the Selection/Distribution Unit (SDU) function (in the case of a voice call over a digital air interface),

A3 The A3 interface carries coded user information (voice/data) and signaling information between the SDU function and the channel element component of the BS (BTS). This is a logical description of the endpoints of the A3 interface. The physical endpoints are beyond the scope of this specification. The A3 interface is composed of two parts: signaling and user traffic. The signaling information is carried across a separate logical channel from the user traffic channel, and controls the allocation and use of channels for transporting user traffic.

A5 The A5 interface carries a full duplex stream of bytes between the Interworking Function (IWF) and the SDU function.

A7 The A7 interface carries signaling information between a source BS and a target BS.

A8 The A8 interface carries user traffic between the BS and the PCF.

A9 The A9 interface carries signaling information between the BS and the PCF.

A10 The A10 interface carries user traffic between the PCF and the PDSN.

A11 The A11 interface carries signaling information between the PCF and the PDSN.

This is a logical architecture that does not imply any particular physical implementation. Figure 1.7.2-1 shows the relationship among network components in support of mobile originations, mobile terminations, and direct BS-to-BS soft/softer handoff operations.

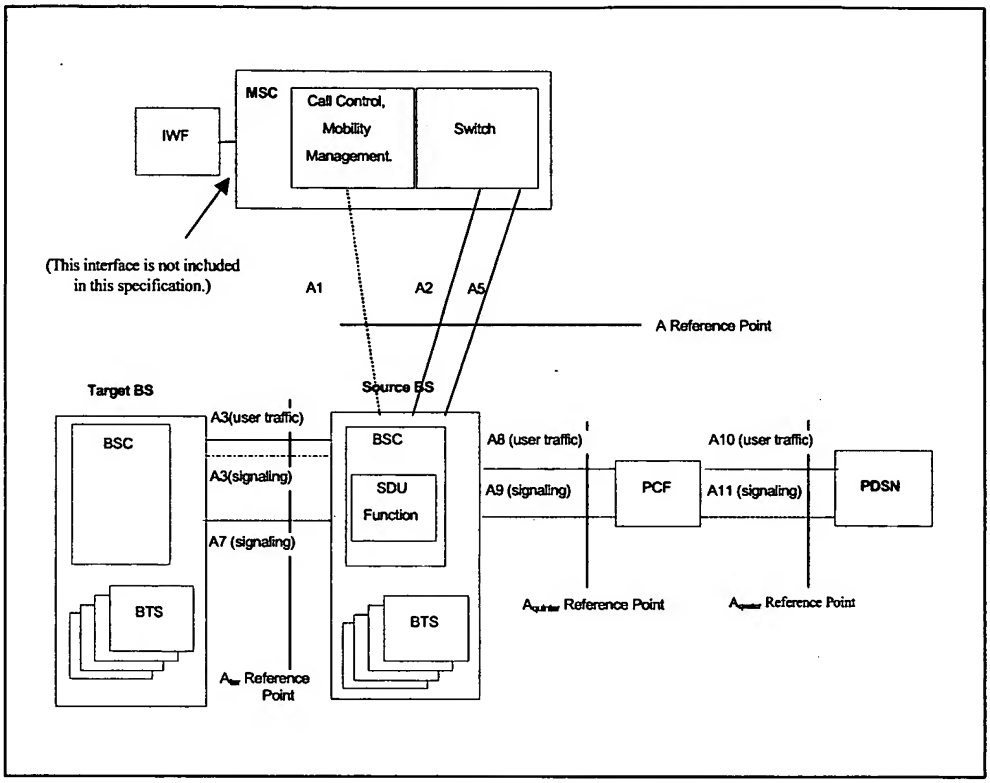

Figure 1.7.2-1- Reference Model for Digital Air Interfaces

The A3 interface is used for inter-BS soft/softer handoff when a target BS is attached to the frame selection function within the source BS.

The A5 interface is used to provide a path for user traffic for circuit-oriented data calls between the source BS and the MSC.

The A7 interface is used between the source BS and the target BS for inter-BS soft/softer handoff.

The A8 interface is used to provide a path for user traffic between source BSC and PCF for packet data services.

The A9 interface is used to provide a signaling connection between source BSC and PCF for packet data services.

The A10 interface is used to provide a path for user traffic between a PCF and a PDSN for packet data services.

The A11 interface is used to provide a signaling connection between a PCF and a PDSN for packet data services.

For this standard, the circuit-oriented data IWF is considered to be located at the MSC.

1.7.3 MSC – BS Functional Partitioning

The functions provided by the network elements on either side of the MSC-BS Interface define the functions that the MSC-BS Interface supports. Figure 1.7.3-1 below depicts a model of the MSC-BS Interface functional planes. The four functional planes embody all of the functions that the MSC-BS Interface supports.

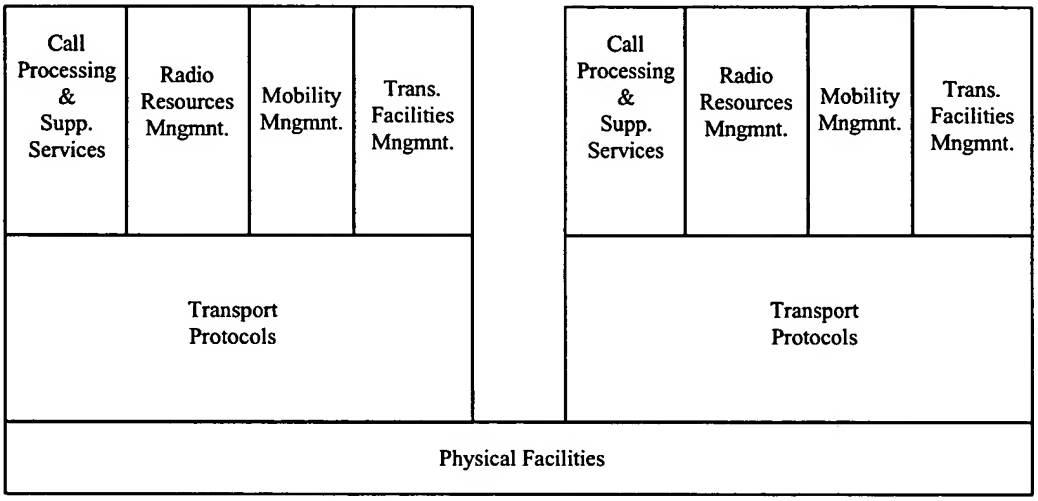

Figure 1.7.3-1 - MSC-BS Interface Functional Planes

The transmission facilities management plane is the basis for the MSC-BS Interface telecommunications services. It manages the transmission means for the communication needs of the subscribers as well as the required information transfer between the BS and MSC. The radio resource management plane manages stable links between the MSs and the MSC and supports the movement of subscribers during calls (i.e., handoff control). The mobility management plane manages subscriber databases and subscriber location data. The call processing plane manages call control and telecommunications services for the subscribers.

1.7.4 Information Flows

The interfaces defined in this standard provide:

- bearer (user traffic) connections (A2, A3(traffic), A5, A8, and A10),
- a signaling connection between the channel element component of the BS and the SDU function (A3signaling),
- a direct BS to BS signaling connection (A7),
- a signaling connection between the BS and the MSC (A1),
- a signaling connection between the BS and PCF (A9),
- a signaling connection between a PCF and PDSN pair (A11). A11 signaling messages are also used for passing accounting related and other information from the PCF to the PDSN,

In general, the functions specified on the interfaces are based on the premise that the interfaces carry signaling information that traverses the following logical paths:

- between the BS and MSC only (e.g., BS management information);
- between the MS and the MSC via the BS (e.g., the BS maps air interface messages to the MSC-BS Interface);
- between the BS and other network elements via the MSC (e.g., mobility management messages to the HLR);
- between the source BS and the target BS;
- between the BS and the PCF; and
- between the PCF and the PDSN.
- between the MS and the PDSN (e.g., Authorization information and MIP signaling).

These logical paths define all of the traffic that can exist on the defined interfaces. To support these logical paths, the interfaces of this standard can be described by the following characteristics:

- physical and electromagnetic parameters;
- channel structures; and
- message types and contents.

1.7.6 Packet Data Micro-Mobility and Macro-Mobility Concepts

The figure below provides a conceptual view of levels of packet data mobility.

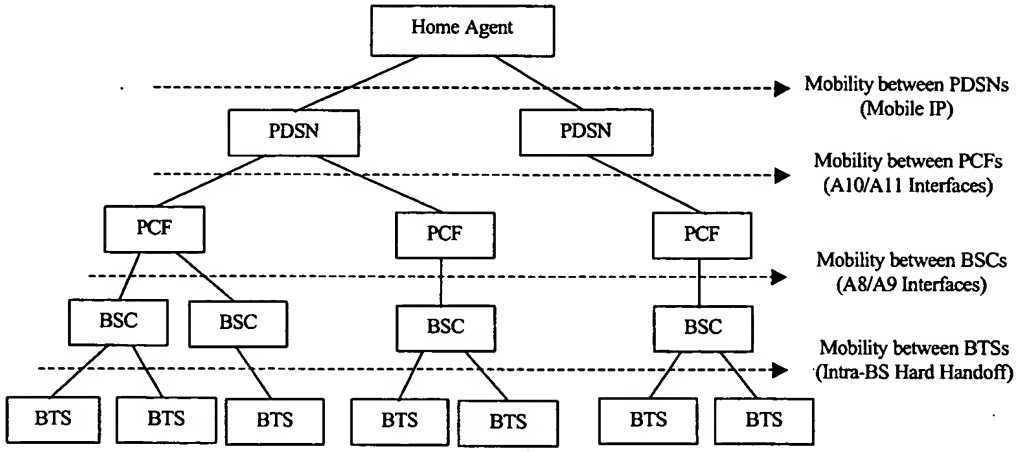

Figure 1.7.6-1 – Harmonized Architecture for Packet Data

- The A8/A9 interfaces support mobility between BSCs under the same PCF.
- The A10/A11 interfaces support mobility between PCFs under the same PDSN.
- Mobile IP supports mobility between PDSN/FA under the same Home Agent.
- Hard handoff and soft handoff procedures realize the mobility between BTSs

2.2.2.3.2 Mobile Origination, Idle Handoff with PACA Active

This section describes the call flow associated with mobile station call origination with PACA active in the system while idle handoff occurs.

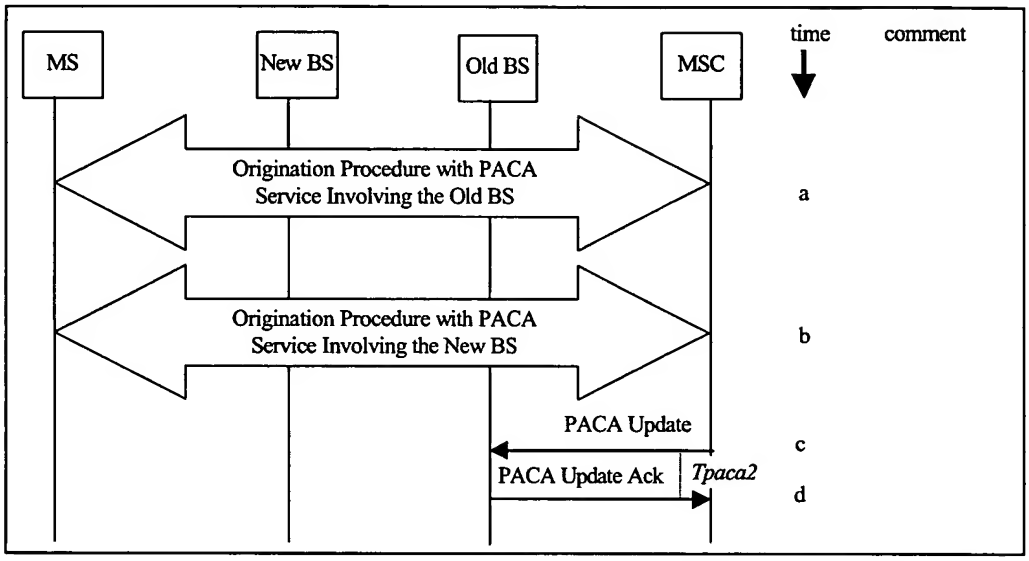

Figure 2.2.2.3.2-1 - Mobile Origination, Idle Handoff with PACA Active

a. The MS previously attempted a call origination and the call has been queued as in steps a through f of Figure 2.2.2.3.2-1.

b. While approaching the boundary of the cell, the MS detects an adequately strong pilot signal transmitted by one of the neighboring cells (new BS). The MS performs an idle handoff and starts monitoring the new paging channel. The MS then transmits an Origination Message, with layer 2 ack required, over the access channel of the air interface to the new BS to request service. In this case, the PACA_REORIG field received in the Origination Message is set to '1'. The normal Origination procedure (see section 2.2.2.1) will process the re-origination request.

c. The MSC sends a PACA Update message to instruct the old BS to remove the service request from its PACA queue. The MSC can send the PACA Update message anytime after receiving the CM Service Request message from the new base station. The MSC starts timer Tpaca2.

d. The BS sends a PACA Update Ack message to the MSC to confirm that appropriate action has been taken by the BS and that its PACA information has been updated. Upon receipt of the PACA Update Ack message the MSC stops timer Tpaca2.

2.2.2.3.3 Mobile Origination with PACA Active, Consecutive PACA Calls

This section describes the call flow associated with a successful mobile station call origination with consecutive service requests in the system. In this scenario the MS originates a call to another number while the first call request is in a PACA queue.

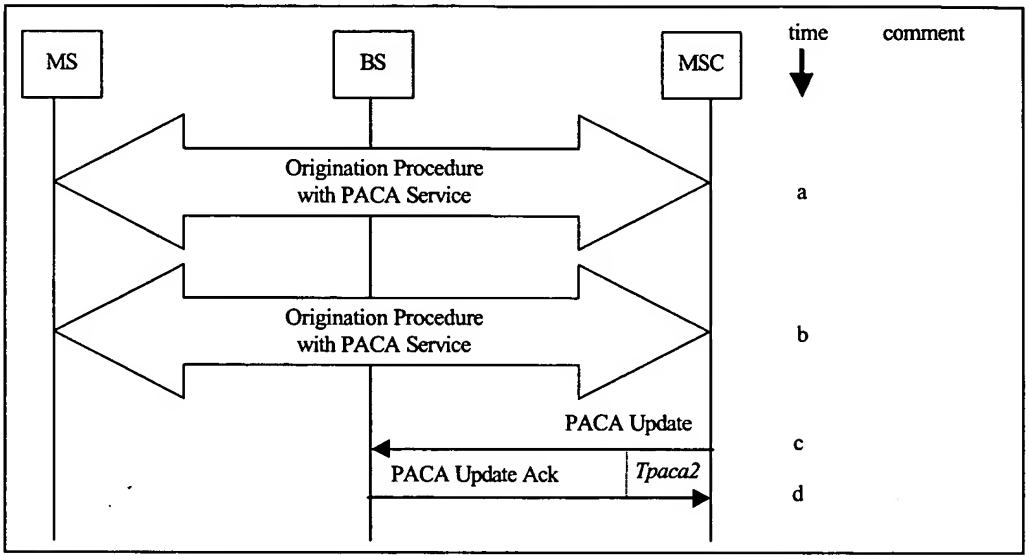

Figure 2.2.2.3.3-1 - Mobile Origination with Consecutive PACA Call Requests

a. The MS previously attempted a call origination and the call has been queued as in steps a through f of Figure 2.2.2.3.3-1.

b. While the first call request is pending, the MS sends an Origination Message, with layer 2 ack required, over the access channel of the air interface to the BS to request service using a different called party number. In this case, the PACA_REORIG field received in the Origination Message is set to '0'. The normal Origination procedure (see section 2.2.2.1) will process the re-origination request.

c. The MSC sends a PACA Update message to the BS with the PACA Order indicating "Remove MS from the queue." The MSC can send the PACA Update message anytime after receiving the second CM Service Request message. The MSC starts timer Tpaca2.

d. The BS sends a PACA Update Ack message to the MSC to confirm that appropriate action has been taken by the BS and that its PACA information has been updated. Upon receipt of the PACA Update Ack message the MSC stops timer Tpaca2.

2.2.2.3.4 PACA Call Cancellation Initiated by the MS

This section describes the call flow associated with cancellation of a PACA queued call in the system. In this scenario the cancellation is initiated by the MS.

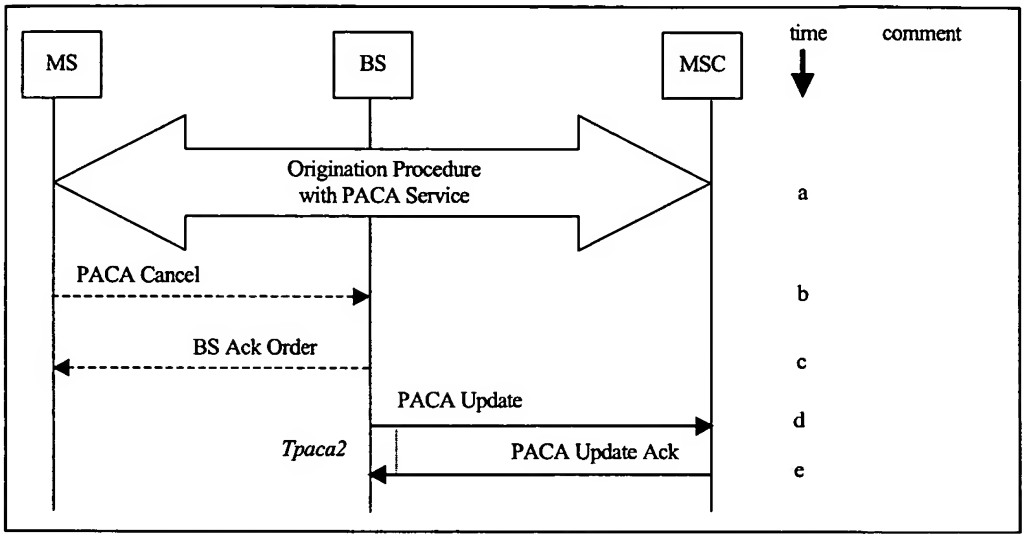

Figure 2.2.2.3.4-1 - PACA Call Cancellation Initiated by the MS

a. The MS previously attempted a call origination and the call has been queued as in steps a through f of Figure 2.2.2.3.4-1.

b. The MS sends a PACA Cancel Message, with layer 2 ack required, over the access channel of the air interface to the BS to request the call be canceled.

c. The BS acknowledges the receipt of the PACA Cancel Message with a Base Station Acknowledgment Order to the MS.

d. The BS cancels the call and removes the request from its PACA queue. The BS then sends a PACA Update message to the MSC to indicate that the call has been canceled. The BS starts timer Tpaca2.

e. The MSC sends a PACA Update Ack message to the BS to confirm the receipt of the PACA Update message. Upon receipt of the PACA Update Ack message the BS stops timer Tpaca2.

2.2.2.3.5 PACA Call Cancellation Initiated by either MSC or BS

This section describes the call flow associated with cancellation of a PACA call in the system. In this example scenario the cancellation is initiated by the MSC. The BS-initiated PACA call cancellation is identical except the BS sends the PACA Update message to the MSC.

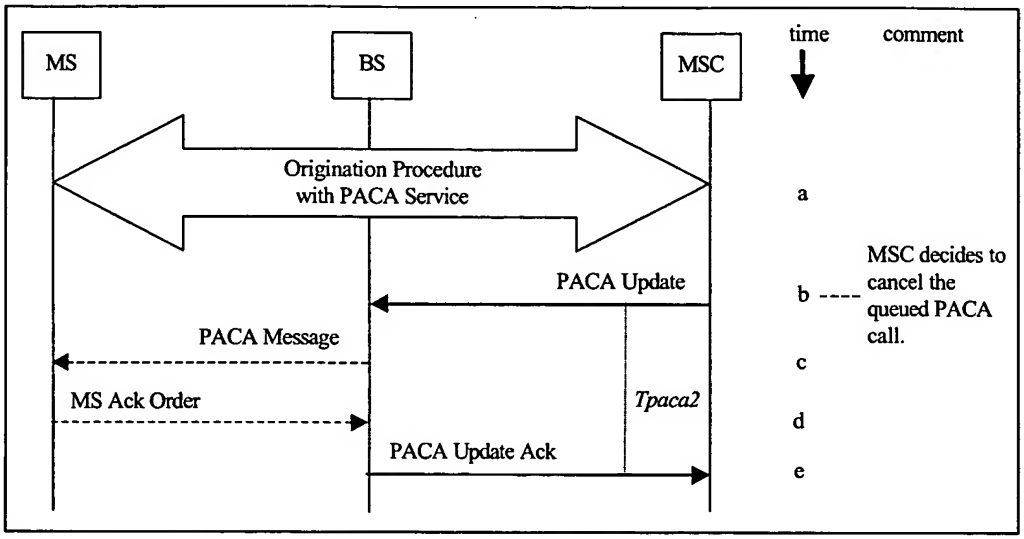

Figure 2.2.2.3.5-1 - PACA Call Cancellation Initiated by the MSC

a. The MS previously attempted a call origination and the call has been queued as in steps a through f of Figure 2.2.2.3.5-1.

b. The MSC sends a PACA Update message to the BS with the PACA Order indicating "Remove MS from the queue and release MS." The MSC starts timer Tpaca2.

c. The BS cancels the call and removes the request from its PACA queue. The BS then sends a PACA Message (PURPOSE='0011') to the MS to indicate that the PACA call has been canceled.

d. The MS sends an MS Ack order to the BS to acknowledge PACA cancellation.

e. The BS sends a PACA Update Ack message to the MSC to confirm that appropriate action has been taken by the BS and that its PACA information has been updated. Upon receipt of the PACA Update Ack message the MSC stops timer Tpaca2.

2.2.3 Mobile Terminated Voice and Circuit Data Calls

The following subsections describe the procedure for establishing a voice or circuit data call through a mobile terminated action. Mobile terminated packet data delivery is specified in sections 2.14 and 2.15 of this document.

Mobile terminated call setup involves exchange of the following MSC-BS messages:

Paging Request

Complete Layer 3 Information with Paging Response

Assignment Request

Assignment Complete

Assignment Failure

Alert with Information

Connect

2.2.3.1 Paging Request

This BSMAP message is sent from the MSC to the BS to initiate a mobile terminated call setup scenario. This message may also be sent for location purposes.

2.2.3.1.1 Successful Operation

The MSC determines that an incoming call (either land or mobile originated) terminates to a MS within its serving region and initiates the paging procedure. It starts timer T3113, sends the Paging Request message to the BS, and waits for the Complete Layer 3 information containing Paging Response message.

When the BS receives the Paging Request message from the MSC, it determines from which cell(s) to broadcast the page request. The page messages are then distributed to the appropriate cell(s), which then broadcast the page message over their paging channels. Where necessary, the page message is inserted into the computed paging channel slot.

Please refer to section 6.1.2.3, "Paging Request," for the format and content of this message.

2.2.3.1.2 Failure Operation

If a Complete Layer 3 Information message containing a Paging Response message has not been received by the MSC before timer T3113 expires, the MSC may repeat the Paging Request message and restart timer T3113.

2.2.3.2 Paging Response

This DTAP message is sent from the BS to the MSC, after receipt of a Page Response Message from the MS, in response to a Paging Request message. The Paging Response and the subsequent MSC response are used for connection establishment.

2.2.3.2.1 Successful Operation

When the MS recognizes a page message containing its identity, it will send a response message to the BS. The BS will construct the Paging Response message using the information received from the MS, append it to the Complete Layer 3 Information message (please refer to section 6.1.2.1, "Complete Layer 3 Information"), and send this combined message to the MSC. The BS will start timer T303 and await reception of the Assignment Request message. The MSC stops timer T3113 upon receiving the Paging Response message.

In the Access Probe Handoff scenario, the source BS (the BS on which the first access probe was sent), upon receiving a page response for the same mobile and the same call forwarded via an A7 connection from another BS, may choose to send a second Paging Response to the MSC. The MSC shall be able to handle a Paging Response for a mobile that is already engaged in a termination attempt by sending a Clear Command message to the BS containing a cause value of "Do not notify MS." The BS shall be able to handle Clear Command messages from the MSC for these duplicated CM Service Request messages."

The base station may select an available channel based on the mobile's capabilities, and assign the MS to that channel at any time following the receipt of a Page Response Message from the MS.

Please refer to section 6.1.2.4, "Paging Response," for the format and content of this message.

2.2.3.2.2 Failure Operation

No action is taken at the BS on failure to receive a Paging Response from the MS.

If the BS fails to receive an Assignment Request message or Clear Command message in response to the Paging Response message prior to expiration of timer T303, then it may send a Release message to the MS, and clear all associated resources.

2.2.3.2.3 Abnormal Operation

If a Paging Response is received by the MSC for a call that is no longer active, the MSC may clear the call.

2.2.3.3 UNUSED SECTION

2.2.3.4 UNUSED SECTION

2.2.3.5 UNUSED SECTION

2.2.3.6 Assignment Request

See section 2.2.1.5.

2.2.3.7 Assignment Complete

See section 2.2.1.6.

Note that for mobile terminated calls, the BS (MSC) considers the call stable and in the conversation state after sending (receiving) the Connect message.

2.2.3.8 Assignment Failure

See section 2.2.1.7.

2.2.3.9 UNUSED SECTION

2.2.3.10 Connect

This DTAP message informs the MSC that the called MS has answered (gone off-hook).

2.2.3.10.1 Successful Operation

When the BS receives the indication that the called MS has answered, it sends the Connect message to the MSC.

Upon receiving the Connect message, the MSC connects both parties, and stops timer T301.

Please refer to section 6.1.2.10, "Connect," for the format and content of this message.

2.2.3.10.2 Failure Operation

If the MSC fails to receive the Connect message prior to expiration of timer T301 then it performs exception handling (e.g., announcement, forwarding). The specific actions are the MSC manufacturer's concern.

2.2.3.11 UNUSED SECTION

2.2.3.12 Alert With Information

This DTAP message is sent from the MSC to the BS. Upon receipt of this message, the BS shall send an Alert With Information Message on the air interface.

2.2.3.12.1 Successful Operation

The MSC sends this message to the BS to request that the BS send an Alert With Information Message on the air interface. This message may be sent by the MSC for other mobile control purposes. For example, this message may be used by the MSC to cause the MS to do audible alerting when it had been previously doing silent alerting during a mobile termination call setup.

Please refer to section 6.1.2.24, "Alert With Information," for the format and content of this message.

2.2.3.12.2 Failure Operation

None.

NULL. Any value that is not in the specified range of a field.

Null Traffic Channel Data. One or more frames of a specified data sequence sent at the lowest agreed-upon rate of the negotiated radio configuration. Null Traffic Channel data may be sent when there is no primary, secondary, or signaling traffic available. Null Traffic Channel data serves to maintain the connectivity between the mobile station and the base station.

Number Assignment Module (NAM). A set of MIN/IMSI-related parameters stored in the mobile station.

Numeric Information. Numeric information consists of parameters that appear as numeric fields in messages exchanged by the base station and the mobile station and information used to describe the operation of the mobile station.

Optional Field. A field defined within a message structure that is optionally transmitted to the message recipient.

Order. A type of message that contains control codes for either the mobile station or the base station.

Ordered Registration. A registration method in which the base station orders the mobile station to send registration related parameters.

Orthogonal Transmit Diversity (OTD). An optional method of transmission of the Forward CDMA Channel that uses two antennas, each transmitting a fraction of the code symbols. It can be used to enhance performance in the presence of multipath fading radio propagation.

OTD. See Orthogonal Transmit Diversity

Overhead Message. A message sent by the base station on the Paging Channel or the Broadcast Control Channel to communicate base-station-specific and system-wide information to mobile stations.

Overload Class (OLC). The means used to control system access by mobile stations, typically in emergency or other overloaded conditions. Mobile stations are assigned one (or more) of sixteen overload classes. Access to the CDMA system can then be controlled on a per class basis by persistence values transmitted by the base station.

PACA. Priority Access and Channel Assignment. See PACA Call.

PACA Call. A priority mobile station originated call for which no traffic channel or voice channel was immediately available, and which has been queued for a priority access channel assignment.

Packet. The unit of information exchanged between the service option applications of the base station and the mobile station.

Padding. A sequence of bits used to fill from the end of a message to the end of a message capsule, typically to the end of the frame or half frame. All bits in the padding are '0'.

Paging. The act of seeking a mobile station when a call has been placed to that mobile station.

If a page match is declared and the mobile station determines that it should be monitoring a neighboring base station, the mobile station may perform an access entry handoff to the neighboring base station, if all of the following conditions hold:

- The neighboring base station is listed in NGHBR_REC.
- The ACCESS_ENTRY_HO field of the NGHBR_REC corresponding to the neighboring base station is equal to '1'.
- If the mobile station performs an access entry handoff on the Access Channel, none of CONFIG_MSG_SEQ$_S$, SYS_PAR_MSG_SEQ$_S$, NGHBR_LST_MSG_SEQ$_S$, EXT_NGHBR_LST_MSG_SEQ$_S$, GEN_NGHBR_LST_MSG_SEQ$_S$, CHAN_LST_MSG_SEQ$_S$, EXT_SYS_PAR_MSG_SEQ$_S$, EXT_CHAN_LST_MSG_SEQ$_S$, USER_ZONE_ID_MSG_SEQ$_S$, and PRI_NGHBR_LST_MSG_SEQ$_S$ are equal to NULL.
- If the mobile station performs an access entry handoff on the Enhanced Access Channel, none of CONFIG_MSG_SEQ$_S$, A41_SYS_PAR_MSG_SEQ$_S$, MC_RR_PAR_MSG_SEQ$_S$, UNI_NGHBR_LST_MSG_SEQ$_S$, EXT_CHAN_LST_MSG_SEQ$_S$, USER_ZONE_ID_MSG_SEQ$_S$, and PRI_NGHBR_LST_MSG_SEQ$_S$ are equal to NULL.

Otherwise, the mobile station shall not perform an access entry handoff to the neighboring base station.

The mobile station need not perform an access entry handoff to a base station operating on another frequency.

If the mobile station performs an access entry handoff, it shall follow the procedures specified in 2.6.2.1.4.2 and shall perform the access entry handoff before entering the *Update Overhead Information Substate* of the *System Access State* (see 2.6.3.2).

If PACA is enabled, and if the mobile station performs an access entry handoff, the mobile station shall respond to the mobile-station-addressed page first and shall then re-originate the PACA call on the new base station.

2.6.2.4 Mobile Station Order and Message Processing Operation

During the *Mobile Station Order and Message Processing Operation*, the mobile station processes all messages except overhead messages (see 2.6.2.2) and page messages (see 2.6.2.3).

The mobile station shall set CURR_ACC_MSG_SEQ to NULL.

The mobile station shall perform address matching as described in 2.1.2.2 of [4].

If Layer 3 receives a message that requires acknowledgement, the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication within T_{33m} seconds, unless otherwise specified for a particular message.

If Layer 3 receives a message that does not require acknowledgement, the mobile station shall transmit a response only if it is required by the message or order. If a response is required, the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication within T_{33m} seconds,

unless otherwise specified for a particular message.

If the mobile station is to enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication and the mobile station determines that it should be monitoring a neighboring base station, the mobile station may perform an access entry handoff to the neighboring base station, if all of the following conditions hold:

- The neighboring base station is listed in NGHBR_REC.
- The ACCESS_ENTRY_HO field of the NGHBR_REC corresponding to the neighboring base station is equal to '1'.
- $ACC\_ENT\_HO\_ORDER_S$ is equal to '1'.
- If the mobile station performs an access entry handoff on the Access Channel, none of $CONFIG\_MSG\_SEQ_S$, $SYS\_PAR\_MSG\_SEQ_S$, $NGHBR\_LST\_MSG\_SEQ_S$, $EXT\_NGHBR\_LST\_MSG\_SEQ_S$, $GEN\_NGHBR\_LST\_MSG\_SEQ_S$, $CHAN\_LST\_MSG\_SEQ_S$, $EXT\_CHAN\_LST\_MSG\_SEQ_S$, $USER\_ZONE\_ID\_MSG\_SEQ_S$, $PRI\_NGHBR\_LST\_MSG\_SEQ_S$, and $EXT\_SYS\_PAR\_MSG\_SEQ_S$ are equal to NULL.
- If the mobile station performs an access entry handoff on the Enhanced Access Channel, none of $CONFIG\_MSG\_SEQ_S$, $A41\_SYS\_PAR\_MSG\_SEQ_S$, $MC\_RR\_PAR\_MSG\_SEQ_S$, $UNI\_NGHBR\_LST\_MSG\_SEQ_S$, $EXT\_CHAN\_LST\_MSG\_SEQ_S$, $USER\_ZONE\_ID\_MSG\_SEQ_S$, and $PRI\_NGHBR\_LST\_MSG\_SEQ_S$ are equal to NULL.

Otherwise, the mobile station shall not perform an access entry handoff to the neighboring base station.

The mobile station need not perform an access entry handoff to a base station operating on another frequency.

If the mobile station performs an access entry handoff, it shall follow the procedures specified in 2.6.2.1.4.2 and shall perform the access entry handoff before entering the *Update Overhead Information Substate* of the *System Access State* (see 2.6.3.2). If PACA is enabled and the mobile station performs an access entry handoff, the mobile station shall respond to the order/message first and then re-originate the PACA call in the new base station.

The following directed messages and orders can be received. If any field value of the message or order is outside its permissible range, the mobile station shall send a *Mobile Station Reject Order* with ORDQ equal to '00000100' (message field not in valid range).

1. *Abbreviated Alert Order:* The mobile station may alert the user.
2. *Audit Order*
3. *Authentication Challenge Message:* The mobile station shall process the message and shall respond with an *Authentication Challenge Response Message* as specified in 2.3.12.1.4, regardless of the value of $AUTH_S$. The mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication within T_{32m} seconds.

4. *Base Station Challenge Confirmation Order:* The mobile station shall process the message and shall respond with an *SSD Update Confirmation Order* or *SSD Update Rejection Order* as specified in 2.3.12.1.5. The mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication within T_{32m} seconds.

5. *Channel Assignment Message:* The mobile station shall process the message as follows:

   - If $ASSIGN\_MODE_r$ equals '001', the mobile station shall perform the following actions:

     - If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.

     - If a CDMA channel (CDMA_FREQ) is specified in the assignment, the mobile station shall set $CDMACH_s$ = $CDMA\_FREQ_r$, tune to the new Frequency Assignment, and measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2.

     - The mobile station shall set $CONFIG\_MSG\_SEQ_s$ and $ACC\_MSG\_SEQ_s$ to NULL (see 2.6.2.2) and shall set $PILOT\_PN_s$ to the pilot PN sequence offset of the strongest pilot in the list ($PILOT\_PN_r$).

     - If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set $SYS\_PAR\_MSG\_SEQ_s$, $NGHBR\_LST\_MSG\_SEQ_s$, $EXT\_NGHBR\_LST\_MSG\_SEQ_s$, $GEN\_NGHBR\_LST\_MSG\_SEQ_s$, $CHAN\_LST\_MSG\_SEQ_s$, $EXT\_CHAN\_LST\_MSG\_SEQ_s$, $EXT\_SYS\_PAR\_MSG\_SEQ_s$, $USER\_ZONE\_ID\_MSG\_SEQ_s$, $PRI\_NGHBR\_LST\_MSG\_SEQ_s$, $GLOB\_SERV\_REDIR\_MSG\_SEQ_s$, and $EXT\_GLOB\_SERV\_REDIR\_MSG\_SEQ_s$ to NULL. The mobile station shall set $PAGE\_CHAN_s$ to '1' and $PAGECH_s$ to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

   - If $ASSIGN\_MODE_r$ equals '101' and $FREQ\_INCL_r$ equals '0', the mobile station shall perform the following actions:

     - If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.

     - The mobile station shall measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, set $PILOT\_PN_s$ to the pilot PN sequence offset of the strongest pilot in the list ($PILOT\_PN_r$), and set $CONFIG\_MSG\_SEQ_s$ and $ACC\_MSG\_SEQ_s$ to NULL (see 2.6.2.2).

- If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ$_S$, NGHBR_LST_MSG_SEQ$_S$, EXT_NGHBR_LST_MSG_SEQ$_S$, GEN_NGHBR_LST_MSG_SEQ$_S$, CHAN_LST_MSG_SEQ$_S$, EXT_CHAN_LST_MSG_SEQ$_S$, EXT_SYS_PAR_MSG_SEQ$_S$, USER_ZONE_ID_MSG_SEQ$_S$, PRI_NGHBR_LST_MSG_SEQ$_S$, GLOB_SERV_REDIR_MSG_SEQ$_S$, and EXT_GLOB_SERV_REDIR_MSG_SEQ$_S$ to NULL. The mobile station shall set PAGE_CHAN$_S$ to '1' and PAGECH$_S$ to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

- If ASSIGN_MODE$_r$ equals '101', FREQ_INCL$_r$ equals '1', and the band class is not supported by the mobile station, the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication within T_{33m} seconds and send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station).

- If ASSIGN_MODE$_r$ equals '101', FREQ_INCL$_r$ equals '1', and the band class is supported by the mobile station, the mobile station shall perform the following actions:

  - If the message requires acknowledgment, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgment to the message has been sent and acknowledged.

  - The mobile station shall set CDMACH$_S$ = CDMA_FREQ$_r$ and CDMABAND$_S$ = BAND_CLASS$_r$. Then the mobile station shall tune to the new Frequency Assignment, measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, set PILOT_PN$_S$ to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN$_r$), and set CONFIG_MSG_SEQ$_S$ and ACC_MSG_SEQ$_S$ to NULL (see 2.6.2.2).

  - If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ$_S$, NGHBR_LST_MSG_SEQ$_S$, EXT_NGHBR_LST_MSG_SEQ$_S$, GEN_NGHBR_LST_MSG_SEQ$_S$, CHAN_LST_MSG_SEQ$_S$, EXT_CHAN_LST_MSG_SEQ$_S$, EXT_SYS_PAR_MSG_SEQ$_S$, USER_ZONE_ID_MSG_SEQ$_S$, PRI_NGHBR_LST_MSG_SEQ$_S$, GLOB_SERV_REDIR_MSG_SEQ$_S$, and EXT_GLOB_SERV_REDIR_MSG_SEQ$_S$ to NULL. The mobile station shall set PAGE_CHAN$_S$ to '1' and PAGECH$_S$ to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

- If $ASSIGN\_MODE_r$ is not equal to '001' or '101', the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication within T_{33m} seconds and send a *Mobile Station Reject Order* with ORDQ field set to '00000010' (message not accepted in this state).

6. *Data Burst Message*

7. *Extended Channel Assignment Message:* The mobile station shall process the message as follows:

   - If $ASSIGN\_MODE_r$ equals '001', $FREQ\_INCL_r$ equals '0', the mobile station shall perform the following actions:

     - If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.

     - The mobile station shall measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2 set $PILOT\_PN_s$ to the pilot PN sequence offset of the strongest pilot in the list ($PILOT\_PN_r$), and set $CONFIG\_MSG\_SEQ_s$ and $ACC\_MSG\_SEQ_s$ to NULL (see 2.6.2.2).

     - If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set $SYS\_PAR\_MSG\_SEQ_s$, $NGHBR\_LST\_MSG\_SEQ_s$, $EXT\_NGHBR\_LST\_MSG\_SEQ_s$, $GEN\_NGHBR\_LST\_MSG\_SEQ_s$, $EXT\_SYS\_PAR\_MSG\_SEQ_s$, $USER\_ZONE\_ID\_MSG\_SEQ_s$, $PRI\_NGHBR\_LST\_MSG\_SEQ_s$, $GLOB\_SERV\_REDIR\_MSG\_SEQ_s$, and $EXT\_GLOB\_SERV\_REDIR\_MSG\_SEQ_s$ to NULL. The mobile station shall set $PAGE\_CHAN_s$ to '1' and $PAGECH_s$ to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

   - If $ASSIGN\_MODE_r$ equals '001', $FREQ\_INCL_r$ equals '1', and the band class is not supported by the mobile station, the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication within T_{33m} seconds and send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station).

   - If $ASSIGN\_MODE_r$ equals '001', $FREQ\_INCL_r$ equals '1', and the band class is supported by the mobile station, the mobile station shall perform the following actions:

     - If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.

- The mobile station shall set $CDMACH_S$ = $CDMA\_FREQ_r$ and $CDMABAND_S$ = $BAND\_CLASS_r$. The mobile station shall set $CONFIG\_MSG\_SEQ_S$ and $ACC\_MSG\_SEQ_S$ to NULL (see 2.6.2.2). Then the mobile station shall tune to the new Frequency Assignment, measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, and set $PILOT\_PN_S$ to the pilot PN sequence offset of the strongest pilot in the list ($PILOT\_PN_r$).

- If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set $SYS\_PAR\_MSG\_SEQ_S$, $NGHBR\_LST\_MSG\_SEQ_S$, $EXT\_NGHBR\_LST\_MSG\_SEQ_S$, $GEN\_NGHBR\_LST\_MSG\_SEQ_S$, $CHAN\_LST\_MSG\_SEQ_S$, $EXT\_CHAN\_LST\_MSG\_SEQ_S$, $EXT\_SYS\_PAR\_MSG\_SEQ_S$, $USER\_ZONE\_ID\_MSG\_SEQ_S$, $PRI\_NGHBR\_LST\_MSG\_SEQ_S$, $GLOB\_SERV\_REDIR\_MSG\_SEQ_S$, and $EXT\_GLOB\_SERV\_REDIR\_MSG\_SEQ_S$ to NULL. The mobile station shall set $PAGE\_CHAN_S$ to '1' and $PAGECH_S$ to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

- If $ASSIGN\_MODE_r$ is not equal to '001', the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication within T_{33m} seconds and send a *Mobile Station Reject Order* with ORDQ field set to '00000010' (message not accepted in this state).

8. *Feature Notification Message*

9. *Local Control Order*

10. *Lock Until Power-Cycled Order:* The mobile station shall record the reason for the *Lock Until Power-Cycled Order* in the mobile station's semi-permanent memory ($LCKRSN\_P_{S-p}$ equals the least significant four bits of $ORDQ_r$). After a mobile station receives this order, it shall not enter the *System Access State* (see 2.6.3) until it has received an *Unlock Order* or until after power-cycling the mobile station (i.e., after the next mobile station power-up). This requirement shall take precedence over any other mobile station requirement specifying entry to the *System Access State*. The mobile station should notify the user of the locked condition. The mobile station shall exit the *Mobile Station Idle State* and enter the *System Determination Substate* of the *Mobile Station Initialization State* with a lock indication (see 2.6.1.1). This allows the mobile station to operate in an alternate operating mode while locked.

11. *Maintenance Required Order:* The mobile station shall record the reason for the *Maintenance Required Order* in the mobile station's semi-permanent memory ($MAINTRSN_{S-p}$ equals the least significant four bits of $ORDQ_r$). If the mobile station has previously received a *Lock Until Power-Cycled Order*, it shall remain in the locked condition; otherwise the mobile station shall remain in the unlocked

condition. The mobile station should notify the user of the maintenance required condition.

12. *PACA Message:* If $P\_REV\_IN\_USE_S$ is less than or equal to four, and if the mobile station does not support PACA capability, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (message requires a capability that is not supported by the mobile station); otherwise, the mobile station shall process the message as follows:

- If $PACA_S$ is equal to disabled, the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication within T_{33m} seconds and shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000010' (message not accepted in this state).
- If $PACA_S$ is equal to enabled, the mobile station shall perform the following:
  - If the purpose of the message is to respond to an *Origination Message* ($PURPOSE_r$ is equal to '0000'), the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication within T_{33m} seconds and send a *Mobile Station Reject Order* with the ORDQ field set to '00000010' (message not accepted in this state).
  - If the purpose of the message is to provide the queue position of the PACA call ($PURPOSE_r$ is equal to '0001'), the mobile station shall set the PACA state timer to the duration shown in Table 3.7.2.3.2.20-2, corresponding to the value of $PACA\_TIMEOUT_S$, should indicate to the user that the PACA call is still queued, and should indicate the current queue position (Q_POS_r) of the call.
  - If the purpose of the message is to instruct the mobile station to re-originate the PACA call ($PURPOSE_r$ is equal to '0010'), the mobile station shall set the PACA state timer to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of $PACA\_TIMEOUT_S$, and the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* (see 2.6.3) with a PACA response indication within T_{33m} seconds to re-originate the PACA call.
  - If the purpose of the message is to cancel the PACA call ($PURPOSE_r$ is equal to '0011'), the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

13. Registration Accepted Order:

- If $ORDQ_r$ = '00000101', the mobile station shall set $ROAM\_INDI_S = ROAM\_INDI_r$ and should display the roaming condition.
- If $ORDQ_r$ = '00000111', the mobile station shall perform the following

- The mobile station shall set $ROAM\_INDI_S = ROAM\_INDI_r$ and should display the roaming condition.
- The mobile station shall set $SIG\_ENCRYPT\_MODE_S = SIG\_ENCRYPT\_MODE_r$ and start encrypting the signaling messages sent on r-dsch and r-csch using the encryption algorithm specified by $SIG\_ENCRYPT\_MODE_r$ (see Table 3.7.4.5-1) with the key-size specified by KEY_SIZE_r (see Table 3.7.4.5-2).
- If USE_NEW_KEY is set to '1' the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in $KEY_S[KEY\_SEQ\_NEW_{S-p}]$. The mobile station shall increment the variable $KEY\_SEQ\_NEW_{S-p}$ by one (modulo 16).
- If USE_NEW_KEY is set to '0' then the mobile station shall use $KEY[KEY\_SEQ_r]$ as the session key.

14. *Registration Rejected Order:* This order indicates that normal service is not available on this system. The mobile station shall disable the full-TMSI timer. If the received order specifies to delete the TMSI (ORDQ = '00000100'), the mobile station shall set all the bits of the $TMSI\_CODE_{S-p}$ to '1'. The mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a registration rejected indication (see 2.6.1.1).
15. *Registration Request Order:* The mobile station shall process the message and perform registration procedures as specified in 2.6.5.5.2.3.
16. *Security Mode Command Message:* The mobile station shall process the message as follows:
    - The mobile station shall set $SIG\_ENCRYPT\_MODE_S$ to $SIG\_ENCRYPT\_MODE_r$.
    - If USE_NEW_KEY is set to '1' the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in $KEY_S[KEY\_SEQ\_NEW_{S-p}]$. The mobile station shall then increment the variable $KEY\_SEQ\_NEW_{S-p}$ by one (modulo 16).
    - If USE_NEW_KEY is set to '0' then the mobile station shall use $KEY[KEY\_SEQ_r]$ as the session key.
17. *Service Redirection Message:* The mobile station shall process the message as follows:
    - If the mobile station is directed to an unsupported operation mode or band class, the mobile station shall respond with a *Mobile Station Reject Order* with ORDQ equal to '00000110' (message requires a capability that is not supported by the mobile station).
    - If $DELETE\_TMSI_r$ is equal to '1', the mobile station shall set all the bits of $TMSI\_CODE_{S-p}$ to '1'. The mobile station shall disable the full-TMSI timer.

- The mobile station shall set RETURN_IF_FAIL$_S$ = RETURN_IF_FAIL$_r$.
- If RECORD_TYPE$_r$ is equal to '00000000', the mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with an NDSS off indication (see 2.6.1.1); otherwise, the mobile station shall store the redirection record received in the message as REDIRECT_REC$_S$ and shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a redirection indication (see 2.6.1.1).

18. *Retry Order:* The mobile station shall process the message as follows:
    - If RETRY_TYPE$_r$ is equal to '000', the mobile station shall set RETRY_DELAY$_S$[RETRY_TYPE] to 0, where RETRY_TYPE is equal to '001', '010', or '011'.
    - If RETRY_TYPE$_r$ is equal to '001', the mobile station shall perform the following:
        - If RETRY_DELAY$_r$ is equal to '00000000', then the mobile station shall set RETRY_DELAY$_S$[RETRY_TYPE$_r$] to 0.
        - If RETRY_DELAY$_r$ is not equal to '00000000', the mobile station shall set RETRY_DELAY$_S$[RETRY_TYPE$_r$] as follows:
            + If the most significant bit of the RETRY_DELAY$_r$ is '0', set RETRY_DELAY_UNIT$_S$ to 1000ms. If the most significant bit of the RETRY_DELAY$_r$ is '1', set RETRY_DELAY_UNIT$_S$ to 60000ms.
            + The mobile station shall set RETRY_DELAY_VALUE$_S$ to the seven least significant bits of RETRY_DELAY$_r$.
            + The mobile station shall store the next system time 80 ms boundary + RETRY_DELAY_VALUE$_S$ × RETRY_DELAY_UNIT$_S$ ms as RETRY_DELAY$_S$[RETRY_TYPE$_r$].

19. *Slotted Mode Order*: After receiving this order, the mobile station shall set SLOTTED$_S$ to YES. The mobile station shall disable the $T_{MS\_Slotted}$ timer.

20. *SSD Update Message:* The mobile station shall process the message and shall respond with a *Base Station Challenge Order* as specified in 2.3.12.1.5.. The mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication within T_{32m} seconds.

21. *Status Request Message:* The mobile station shall process the message. If P_REV_IN_USE$_S$ is less than or equal to three, the mobile station shall respond with a *Status Response Message*. If P_REV_IN_USE$_S$ is greater than three, the mobile station shall respond with an *Extended Status Response Message*. The mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication within T_{33m} seconds. If the message does not specify any qualification information (QUAL_INFO_TYPE$_r$ is equal to '00000000'), the mobile station shall include the requested information records in the response. If the message specifies a band class (QUAL_INFO_TYPE$_r$ is equal to '00000001'), the mobile station shall only include the requested information records for the specified band class (BAND_CLASS$_r$) in the response.

If the message specifies a band class and an operating mode ($QUAL\_INFO\_TYPE_r$ is equal to '00000010'), the mobile station shall only include the requested information records for the specified band class ($BAND\_CLASS_r$) and operating mode (OP_MODE_r) in the response. If the message specifies a band class or a band class and an operating mode which is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ set to '00000110' (message requires a capability that is not supported by the mobile station). If the response to this message exceeds the allowable length, the mobile station shall send a *Mobile Station Reject Order* with ORDQ set to '00001000' (response message would exceed the allowable length). If the message specifies an information record which is not supported by the mobile station for the specified band class and operating mode, the mobile station shall send a *Mobile Station Reject Order* with ORDQ set to '00001001' (information record is not supported for the specified band class and operating mode).

22. *TMSI Assignment Message:* The mobile station shall store the TMSI zone and code as follows:

    - The mobile station shall store the length of the TMSI zone field by setting $ASSIGNING\_TMSI\_ZONE\_LEN_{s\text{-}p}$ to $TMSI\_ZONE\_LEN_r$,
    - The mobile station shall store the assigning TMSI zone number by setting the $ASSIGNING\_TMSI\_ZONE\_LEN_{s\text{-}p}$ least significant octets of $ASSIGNING\_TMSI\_ZONE_{s\text{-}p}$ to $TMSI\_ZONE_r$, and
    - The mobile station shall store the TMSI code by setting $TMSI\_CODE_{s\text{-}p}$ to $TMSI\_CODE_r$.

    The mobile station shall set the TMSI expiration time by setting $TMSI\_EXP\_TIME_{s\text{-}p}$ to $TMSI\_EXP\_TIME_r$. The mobile station shall disable the full-TMSI timer. The mobile station shall then respond with a *TMSI Assignment Completion Message* within T_{56m} seconds.

23. *Unlock Order:* After receiving this order, the mobile station is no longer locked. The mobile station should notify the user that the locked condition has been removed. The mobile station shall enter the *System Determination Substate of the Mobile Station Initialization State* with an *unlock indication* (see 2.6.1.1).

24. *User Zone Reject Message*

The mobile station shall ignore all other messages and orders.

2.6.2.5 Mobile Station Origination Operation

The *Mobile Station Origination Operation* is performed when the mobile station is directed by the user to initiate a call, or if the *Mobile Station Idle State* is entered with $NDSS\_ORIG_s$ enabled.

If the mobile station is directed by the user to initiate a call, the mobile station shall perform the following:

- If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- The mobile station shall set CURR_ACC_MSG_SEQ to NULL.

The mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* (see 2.6.3) with an origination indication within T_{33m} seconds.

2.6.2.6 Mobile Station Message Transmission Operation

Support of this operation is optional. If the mobile station supports the *Mobile Station Message Transmission Operation*, the operation is performed when the user directs the mobile station to transmit a *Data Burst Message*, or when the mobile station detects a change in hook status and the mobile station supports the *Device Information Message* on the r-csch.

If the mobile station supports this operation, the mobile station shall set CURR_ACC_MSG_SEQ to NULL.

If the mobile station supports this operation and the operation is performed when the user directs the mobile station to transmit a *Data Burst Message*, the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* (see 2.6.3.2) with a message transmission indication within T_{33m} seconds.

If the mobile station supports this operation and the operation is performed when the mobile station detects a change in hook status the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* (see 2.6.3.2) with a hook status indication within T_{33m} seconds.

2.6.2.7 Mobile Station Power-Down Operation

The *Mobile Station Power-Down Operation* is performed when the user directs the mobile station to power down.

The mobile station shall update stored parameters and perform other registration procedures as specified in 2.6.5.5.2.4.

If no power-down registration is performed (see 2.6.5.5.2.4), the mobile station may power down.

2.6.2.8 Mobile Station PACA Cancel Operation

The *Mobile Station PACA Cancel Operation* is performed when the user directs the mobile station to cancel a PACA call.

If $PACA_S$ is equal to enabled, the mobile station shall perform the following:

- The mobile station shall set $PACA_S$ to disabled.
- The mobile station shall set PACA_CANCEL to '0', if PACA_CANCEL is equal to '1'.
- The mobile station shall disable the PACA state timer.

- The mobile station should indicate to the user that the PACA call has been canceled.
- The mobile station shall set CURR_ACC_MSG_SEQ to NULL.
- The mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* (see 2.6.3) with a PACA cancel indication within T_{33m} seconds.

2.6.3 System Access State

In this state, the mobile station sends messages to the base station on the r-csch and receives messages from the base station on the f-csch.

As illustrated in Figure 2.6.3-1, the *System Access State* consists of the following substates:

- *Update Overhead Information Substate* - In this substate, if the mobile station supports the Broadcast Control Channel for Spreading Rate 1 or Spreading Rate 3 and if the protocol revision level in use is greater than six, the mobile station will monitor the Broadcast Control Channel until it has received a current set of overhead messages; otherwise, the mobile station will monitor the Paging Channel until it has a current set of overhead messages.
- *Mobile Station Origination Attempt Substate* - In this substate, the mobile station sends an *Origination Message* to the base station.
- *Page Response Substate* - In this substate, the mobile station sends a *Page Response Message* to the base station.
- *Mobile Station Order/Message Response Substate* - In this substate, the mobile station sends a response to a message received from the base station.
- *Registration Access Substate* - In this substate, the mobile station sends a *Registration Message* to the base station.
- *Mobile Station Message Transmission Substate* - In this substate, the mobile station sends a *Data Burst Message* or a *Device Information Message* to the base station.
- *PACA Cancel Substate* - In this substate, the mobile station sends a *PACA Cancel Message* to the base station.

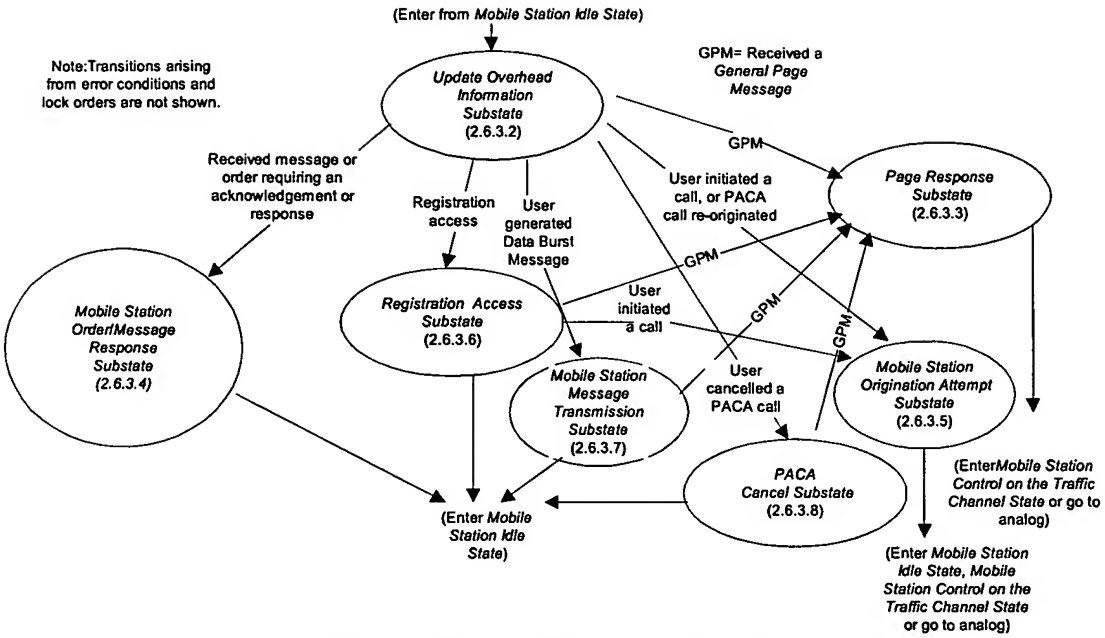

Figure 2.6.3-1. System Access State

2.6.3.1 Access Procedures

2.6.3.1.1 Access Attempts

If the mobile station monitors the Paging Channel, the mobile station transmits on the Access Channel using a random access procedure. Many parameters of the random access procedure are supplied by the base station in the *Access Parameters Message.* The random access procedure is described in [4] and [3].

If the mobile station monitors the Forward Common Control Channel/Broadcast Control Channel, the mobile station transmits on the Enhanced Access Channel using a random access procedure. Many parameters of the random access procedure are supplied by the base station in the *Enhanced Access Parameters Message.*

2.6.3.1.2 Reserved

2.6.3.1.3 Handoffs

While in the *System Access State*, the mobile station shall continue its pilot search (see 2.6.3.1.3.1), and may perform access handoffs (see 2.6.3.1.3.2) and/or access probe handoffs (see 2.6.3.1.3.3).

If the mobile station performs access handoffs and/or access probe handoffs, the mobile station shall maintain the following variables:

- CURRENT_ACTIVE_PILOT$_S$
- PREVIOUS_ACTIVE_PILOT$_S$

- FIRST_ACTIVE_PILOT$_S$

Upon entering the *System Access State* the mobile station shall set CURRENT_ACTIVE_PILOT$_S$, PREVIOUS_ACTIVE_PILOT$_S$ and FIRST_ACTIVE_PILOT$_S$ to NULL. Prior to starting an access attempt, the mobile station shall set CURRENT_ACTIVE_PILOT$_S$ and PREVIOUS_ACTIVE_PILOT$_S$ to NULL. When the mobile station selects a base station for transmission of an access probe, the mobile station shall proceed as follows:

- If CURRENT_ACTIVE_PILOT$_S$ is not the same as the pilot of the selected base station, the mobile station shall set PREVIOUS_ACTIVE_PILOT$_S$ to the value of CURRENT_ACTIVE_PILOT$_S$.
- The mobile station shall set CURRENT_ACTIVE_PILOT$_S$ to the identity of the pilot corresponding to the selected base station.
- If FIRST_ACTIVE_PILOT$_S$ is NULL, the mobile station shall set FIRST_ACTIVE_PILOT$_S$ to the value of CURRENT_ACTIVE_PILOT$_S$.

Before the mobile station transmits an access probe to a new base station on the Access Channel, the mobile station shall update parameters based on the *System Parameters Message*, the *Access Parameters Message* and the *Extended System Parameters Message* on the associated new Paging Channel and process parameters from the messages (see 2.6.2.2.1, 2.6.2.2.2, and 2.6.2.2.5).

Before the mobile station transmits an access probe to a new base station on the Enhanced Access Channel, the mobile station shall update parameters based on the *ANSI-41 System Parameters Message*, the *Enhanced Access Parameters Message*, and the *MC-RR System Parameters Message* on the associated new Broadcast Control Channel and process parameters from the messages (see 2.6.2.2.13, 2.6.2.2.14, and 2.6.2.2.15).

If the mobile station monitors the Paging Channel, the mobile station shall update parameters based on the *Neighbor List Message, the Extended Neighbor List Message,* or the *General Neighbor List Message* on the associated new Paging Channel and process parameters from the message (see 2.6.2.2.3, 2.6.2.2.7, and 2.6.2.2.8).

If the mobile station monitors the Forward Common Control Channel/Broadcast Control Channel, the mobile station shall update parameters based on the *Universal Neighbor List Message* on the associated new Broadcast Control Channel and process parameters from the message (see 2.6.2.2.17).

If the mobile station receives the *User Zone Identification Message* or the *Private Neighbor List Message*, the mobile station shall update parameters based on these messages on the associated new Paging Channel or Broadcast Control Channel and process parameters from the messages (see 2.6.2.2.9 and 2.6.2.2.10). If the mobile station receives a *Global Service Redirection Message* (see 2.6.2.2.6) which directs the mobile station away from the new base station, the mobile station shall not access the new base station. If the mobile station receives an *Extended Global Service Redirection Message* (see 2.6.2.2.11) which directs the mobile station away from the new base station, the mobile station shall not access the new base station. The mobile station shall process these messages only once after each access handoff.

2.6.3.1.3.1 Pilot Search

The following sets of pilot offsets are defined for a mobile station in the *System Access State*. Each pilot offset is a member of only one set.

- Active Set: The pilot offset of the Forward CDMA Channel whose Paging Channel or Forward Common Control Channel/Broadcast Control Channel is being monitored.
- Neighbor Set: The pilots that are not currently in the Active Set and are likely candidates for access handoff or access probe handoff. The members of the Neighbor Set are specified in the *Neighbor List Message*, the *Extended Neighbor List Message*, and the *General Neighbor List Message on the Paging Channel*. The members of the Neighbor Set are specified in the *Universal Neighbor List Message* on the Broadcast Control Channel.
- Remaining Set: The set of all possible pilot offsets in the current system (integer multiples of PILOT_INC$_S$) on the current CDMA Frequency Assignment, excluding the pilots in the Neighbor Set and the Active Set.

2.6.3.1.3.2 Access Handoff

The mobile station is permitted to perform an access handoff to use the Paging Channel with the best pilot strength and an associated Access Channel. The mobile station is permitted to perform an access handoff to use the Forward Common Control Channel with the best pilot strength and an associated Enhanced Access Channel. The mobile station is permitted to perform an access handoff when waiting for a response from the base station or before sending a response to the base station. An access handoff is permitted after an access attempt while the mobile station is in the *Page Response Substate* or the *Mobile Station Origination Attempt Substate*.

When the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel while waiting for a response from the base station in the *Page Response Substate* or in the *Mobile Station Origination Attempt Substate*, the mobile station shall perform an access handoff, if all of the following conditions hold:

- The pilot corresponding to the new base station is in the list ACCESS_HO_LIST,
- ACCESS_HO$_S$ is equal to '1', and
- The mobile station is not already in the process of performing an access attempt.

When the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel, after receiving a message but before responding to that message while in the *Page Response Substate* or in the *Mobile Station Origination Attempt Substate*, the mobile station shall perform an access handoff if the following conditions hold:

- The pilot corresponding to the new base station is in the list ACCESS_HO_LIST,
- ACCESS_HO$_S$ is equal to '1',
- ACCESS_HO_MSG_RSP$_S$ is equal to '1', and
- The mobile station is not already in the process of performing an access attempt.

When the mobile station declares an insufficiency of the Paging Channel[3] or the Forward Common Control Channel, while waiting for a response from the base station in the *Page Response Substate* or in the *Mobile Station Origination Attempt Substate*, the mobile station may perform an access handoff if all of the following conditions hold:

- The pilot corresponding to the new base station is in the list ACCESS_HO_LIST,
- $ACCESS\_HO_S$ is equal to '1', and
- The mobile station is not already in the process of performing an access attempt.

When the mobile station declares an insufficiency of the Paging Channel[4] or the Forward Common Control Channel, after receiving a message but before responding to that message while in the *Page Response Substate* or in the *Mobile Station Origination Attempt Substate*, the mobile station may perform an access handoff if all of the following conditions hold:

- The pilot corresponding to the new base station is in the list ACCESS_HO_LIST,
- $ACCESS\_HO_S$ is equal to '1',
- $ACCESS\_HO\_MSG\_RSP_S$ is equal to '1', and
- The mobile station is not already in the process of performing an access attempt.

If $ACCESS\_PROBE\_HO_S$ is equal to '0' and $ACCESS\_HO_S$ is equal to '1', and the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel during an access attempt, after sending at least one complete access probe, the mobile station may monitor other Paging Channels or the Forward Common Control Channels which are in ACCESS_HO_LIST for T_{42m} seconds after the loss of the Paging Channel or the Forward Common Control Channel on which the access attempt was made[5].

2.6.3.1.3.3 Access Probe Handoff

The mobile station is permitted to perform an access probe handoff when the mobile station is in the *Page Response Substate* or the *Mobile Station Origination Attempt Substate*.

The mobile station may perform an access probe handoff during an access attempt to a pilot in ACCESS_HO_LIST when the message being sent is the *Origination Message* or the *Page Response Message*, if all of the following conditions hold:

- $ACCESS\_PROBE\_HO_S$ is equal to '1',

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[3] Insufficiency of the Paging Channel and the Forward Common Control Channel is implementor-defined.

[4] Insufficiency of the Paging Channel and the Forward Common Control Channel is implementor-defined.

[5] The mobile station would be waiting for a response to the message transmitted in the access probe.

The mobile station shall set the TMSI expiration time by setting $TMSI\_EXP\_TIME_{S\text{-}p}$ to $TMSI\_EXP\_TIME_r$. The mobile station shall disable the full-TMSI timer. The mobile station shall then respond with a *TMSI Assignment Completion Message* within T_{56m} seconds.

16. *User Zone Reject Message*

17. Any other message: If the mobile station receives any other message specified in Table 3.7.2.3-1, it shall ignore all Layer 3 fields. The mobile station shall ignore all other messages.

2.6.3.5 Mobile Station Origination Attempt Substate

In this substate, the mobile station sends an *Origination Message*. If the base station responds to the *Origination Message* with an authentication request, the mobile station responds in this substate.

If a message received from the base station requires a Layer 2 acknowledgment and does not require a Layer 3 response, Layer 3 shall indicate to Layer 2 that no response is outstanding (see 2.1.1.2.2.1 of [4]).

If a message received from the base station requires a Layer 2 acknowledgment and also a Layer 3 response, Layer 3 shall indicate to Layer 2 that a response is outstanding (see 2.1.1.2.2.1 of [4]).

When transmitting a response to a message received from the base station, Layer 3 shall indicate to Layer 2 that the type of the message is a response (see 2.1.1.2.2.1 of [4]).

When transmitting an autonomous message (i.e., a message that is not sent as a response to a message received from the base station), Layer 3 shall indicate to Layer 2 that the type of the message is a request other than a registration request or a message transmission request (see 2.1.1.2.2.1 of [4]).

Upon entering the *Mobile Station Origination Attempt Substate*, the mobile station shall set $RLGAIN\_ADJ_S$ to '0000' and perform the following:

- If the substate was entered with an origination indication, the mobile station shall send the *Origination Message* as an r-csch request.
- If the substate was entered with a PACA response indication, the mobile station shall send the *Origination Message* as an r-csch response using the access procedures specified in 2.6.3.1.1.2. The mobile station shall include the dialed digits from the previous origination attempt in the *Origination Message*.
- If the origination is a result of $NDSS\_ORIG_S$ being equal to enabled, the mobile station shall include in the *Origination Message* the dialed digits recorded from the previous origination attempt.
- If the mobile station has a stored service configuration (that is, both the Service Configuration information record and the Non-negotiable Service Configuration information record) and $USE\_SYNC\_ID_S$ is equal to '1', the mobile station may include the SYNC_ID field in the *Origination Message* and, if included, shall set it to the 16-bit CRC computed over the entire stored service configuration as specified in 2.6.11.

- The mobile station shall include in the *Origination Message* as many of the dialed digits as possible without exceeding the message capsule size. When calculating the number of dialed digits to be included in the *Origination Message*, the mobile station shall assume the following if $P\_REV\_IN\_USE_S$ is greater than three:
  - The number of additional reported pilots (NUM_ADD_PILOTS) is equal to five (see 2.6.3.1.7 and 2.7.1.3.1.3) so that up to five additional pilots may be reported in any access probe, and
  - The number of alternative service option numbers (NUM_ALT_SO) is less than or equal to the maximum alternative service option numbers ($MAX\_NUM\_ALT\_SO_S$).
- If $PACA_S$ is equal to enabled, the mobile station shall set the PACA_REORIG field of the *Origination Message* to '1'; otherwise, the mobile station shall set the field to '0'.

While in this substate, the mobile station shall monitor the Paging Channel or the Forward Common Control Channel. The mobile station may perform an access probe handoff or an access handoff as described in 2.6.3.1.3.2 and 2.6.3.1.3.3. If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel (see 2.6.2.1.1.4) during an access attempt, the mobile station may perform an access probe handoff; otherwise, it shall declare an access attempt failure and shall perform the following:

- If the mobile station is monitoring the Paging Channel, the mobile station shall set $SYS\_PAR\_MSG\_SEQ_S$ and $ACC\_MSG\_SEQ_S$ to NULL.
- If the mobile station is monitoring the Forward Common Control Channel, the mobile station shall set $MC\_RR\_PAR\_MSG\_SEQ_S$ and $ACC\_MSG\_SEQ_S$ to NULL.
- If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- If $NDSS\_ORIG_S$ is equal to enabled, the mobile station shall set $NDSS\_ORIG_S$ to disabled, and should indicate to the user that the call origination is canceled.
- The mobile station shall update its registration variables as specified in 2.6.5.5.3.2.
- The mobile station shall disable its transmitter and enter the *Mobile Station Idle State.*

If the mobile station receives confirmation of delivery of any message sent by the mobile station in this substate, the mobile station shall perform an access handoff if all of the following conditions hold:

- The mobile station declares a loss of the Paging Channel or the Forward Common Control Channel,
- The mobile station is permitted to perform an access handoff (see 2.6.3.1.3.2) and there are pilots other than the active pilot in the access handoff list (see 2.6.3.1.3.2).

If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel and does not perform an access handoff, the mobile station shall perform the following:

- If the mobile station is monitoring the Paging Channel, the mobile station shall set $SYS\_PAR\_MSG\_SEQ_S$ and $ACC\_MSG\_SEQ_S$ to NULL.
- If the mobile station is monitoring the Forward Common Control Channel, the mobile station shall set $MC\_RR\_PAR\_MSG\_SEQ_S$ and $ACC\_MSG\_SEQ_S$ to NULL.
- If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- If $NDSS\_ORIG_S$ is equal to enabled, the mobile station shall set $NDSS\_ORIG_S$ to disabled and should indicate to the user that the call origination is canceled.
- The mobile station shall disable its transmitter and enter the *Mobile Station Idle State*.

If the mobile station receives confirmation of delivery of the *Origination Message*, the mobile station shall update its registration variables with respect to the base station to which the first access probe was transmitted after entering the *System Access State* as specified in 2.6.5.5.3.1.

The mobile station shall set and disable the *System Access State* timer as follows:

- The mobile station shall disable the timer whenever it begins an access attempt.
- The mobile station shall set the timer to T_{42m} seconds whenever it ends an access attempt.
- The mobile station shall disable the timer whenever it exits the *System Access State*.

If the *System Access State* timer expires while in this substate, the mobile station shall perform the following:

- If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- If $NDSS\_ORIG_S$ is equal to enabled, the mobile station shall set $NDSS\_ORIG_S$ to disabled, and should indicate to the user that the call origination is canceled.
- If the mobile station is monitoring the Paging Channel, the mobile station shall set $SYS\_PAR\_MSG\_SEQ_S$ and $ACC\_MSG\_SEQ_S$ to NULL and enter the *Mobile Station Idle State*.
- If the mobile station is monitoring the Forward Common Control Channel, the mobile station shall set $MC\_RR\_PAR\_MSG\_SEQ_S$ and $ACC\_MSG\_SEQ_S$ to NULL and enter the *Mobile Station Idle State*.

If the mobile station is directed by the user to disconnect the call, the mobile station shall perform the following actions:

- Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any access attempt in progress.
- The mobile station shall send the *Release Order* (normal release) in assured mode requiring confirmation of delivery.
- After receiving confirmation of delivery of the *Release Order*, the mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a release indication (see 2.6.1.1).

If the mobile station is directed by the user to power off, the mobile station shall perform the following actions:

- Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any access attempt in progress.
- The mobile station shall send the *Release Order* (with power-down indication) in assured mode requiring confirmation of delivery.
- After receiving confirmation of delivery of the *Release Order*, the mobile station shall perform power-down registration procedures (see 2.6.5.1.2).
- The mobile station may power off.

If the mobile station receives a *Channel Assignment Message* or the *Extended Channel Assignment Message*, Layer 3 shall send a *dedicated channel assignment* indication to Layer 2 (see 2.1.2.1.2 of [4]). If the mobile station has not received confirmation of delivery of the *Origination Message* before receiving the *Channel Assignment Message* or the *Extended Channel Assignment Message*, the mobile station shall update its registration variables with respect to the base station to which the first access probe was transmitted after entering the *System Access State*, as specified in 2.6.5.5.3.1.

If the mobile station is to exit the *System Access State* as a result of processing Layer 3 fields of a message requiring an acknowledgment, the mobile station shall exit the *System Access State* after Layer 3 receives an indication from Layer 2 that the acknowledgment to the message has been sent and acknowledged.

If Layer 3 receives a message other than a *Channel Assignment Message* or an *Extended Channel Assignment Message* with an indication from Layer 2 that an access attempt for a message being transmitted was not terminated as a result of processing the Layer 2 fields of the received message, the mobile station shall ignore the received message.

The following directed messages and orders can be received. If any field value of the message or order is outside its permissible range, the mobile station may send a *Mobile Station Reject Order* with ORDQ equal to '00000100' (message field not in valid range).

1. *Authentication Challenge Message:* The mobile station shall respond to the message as specified in 2.3.12.1.4, regardless of the value of $AUTH_S$.
2. *Base Station Challenge Confirmation Order:* The mobile station shall respond to the message as specified in 2.3.12.1.5.
3. *Channel Assignment Message:* The mobile station shall process the message as follows:

- If $ASSIGN\_MODE_r$ equals '000', the mobile station shall perform the following actions:
  - The mobile station shall set CH_IND_S to '01'.
  - The mobile station shall store the frame offset ($FRAME\_OFFSET_S$ = $FRAME\_OFFSET_r$), the message encryption mode indicator ($ENCRYPT\_MODE_S$ = $ENCRYPT\_MODE_r$), and, if $FREQ\_INCL_r$ equals '1', the Frequency Assignment ($CDMACH_S$ = $CDMA\_FREQ_r$).
  - If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.
  - The mobile station shall initialize the CODE_CHAN_LIST as described in 2.6.8, shall set $SERV\_NEG_S$ to disabled, and shall enter the *Traffic Channel Initialization Substate* of the *Mobile Station Control on the Traffic Channel State*.
- If $ASSIGN\_MODE_r$ equals '001', the mobile station shall perform the following actions:
  - If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
  - If a CDMA channel (CDMA_FREQ) is specified in the assignment, the mobile station shall set $CDMACH_S$ = $CDMA\_FREQ_r$, tune to the new Frequency Assignment, and measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2.
  - The mobile station shall set $CONFIG\_MSG\_SEQ_S$ and $ACC\_MSG\_SEQ_S$ to NULL (see 2.6.2.2) and shall set $PILOT\_PN_S$ to the pilot PN sequence offset of the strongest pilot in the list.
  - If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set $SYS\_PAR\_MSG\_SEQ_S$, $NGHBR\_LST\_MSG\_SEQ_S$, $EXT\_NGHBR\_LST\_MSG\_SEQ_S$, $GEN\_NGHBR\_LST\_MSG\_SEQ_S$, $CHAN\_LST\_MSG\_SEQ_S$, $EXT\_CHAN\_LST\_MSG\_SEQ_S$, $EXT\_SYS\_PAR\_MSG\_SEQ_S$, $USER\_ZONE\_ID\_MSG\_SEQ_S$, $PRI\_NGHBR\_LIST\_MSG\_SEQ_S$, $GLOB\_SERV\_REDIR\_MSG\_SEQ_S$, and $EXT\_GLOB\_SERV\_REDIR\_MSG\_SEQ_S$ to NULL.

- If the mobile station has not stored configuration parameters for the Primary Forward Common Control Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set $EXT\_NGHBR\_LST\_MSG\_SEQ_S$, $GEN\_NGHBR\_LST\_MSG\_SEQ_S$, $EXT\_CHAN\_LST\_MSG\_SEQ_S$, $EXT\_SYS\_PAR\_MSG\_SEQ_S$, $USER\_ZONE\_ID\_MSG\_SEQ_S$, $PRI\_NGHBR\_LIST\_MSG\_SEQ_S$, $GLOB\_SERV\_REDIR\_MSG\_SEQ_S$, $A41\_SYS\_PAR\_MSG\_SEQ_S$ $MC\_RR\_PAR\_MSG\_SEQ_S$ $UNIV\_NGHBR\_LIST\_MSG\_SEQ_S$ and $EXT\_GLOB\_SERV\_REDIR\_MSG\_SEQ_S$ to NULL.
- The mobile station shall set $PAGE\_CHAN_S$ to '1' and $PAGECH_S$ to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
- The mobile station shall set $FCCCH\_CHAN_S$ to '1' and $FCCCH\_ID_S$ to the Primary Forward Common Control Channel. The mobile station shall then begin monitoring the Primary Forward Common Control Channel of the selected base station.
- If $RESPOND_r$ is equal to '1', the mobile station shall enter the *Update Overhead Information Substate* with an origination indication.

• If $ASSIGN\_MODE_r$ equals '010', the mobile station shall perform the following actions:

- If the mobile station does not support analog operation in the requested band class, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported by the mobile station) and the mobile station shall remain in the *Mobile Station Origination Attempt Substate*.
- If the mobile station supports analog operation in the requested band class and $RESPOND_r$ equals '1', the mobile station shall perform the following actions:
  + If $USE\_ANALOG\_SYS_r$ equals '0', the mobile station shall perform the following actions:
    o If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
    o The mobile station shall enter the analog Initialization Task with an origination indication (see 2.6.1).
  + If $USE\_ANALOG\_SYS_r$ equals '1', the mobile station shall perform the following actions:
    o The mobile station shall set $SERVSYS_S$ to SYS_A if $ANALOG\_SYS_r$ is equal to '0', or shall set $SERVSYS_S$ to SYS_B if $ANALOG\_SYS_r$ is equal to '1'.

- If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- The mobile station shall then enter the analog Initialization Task with an origination indication (see 2.6.1).

• If $ASSIGN\_MODE_r$ equals '011', the mobile station shall perform the following actions:

– If the mobile station does not support analog operation in the requested band class, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported by the mobile station) and the mobile station shall remain in the *Mobile Station Origination Attempt Substate*.

– If the mobile station supports analog operation in the requested band class:

+ If the analog channel type is '00', the mobile station shall perform the following actions:
  - The mobile station shall store the system identification ($SID_S = SID_r$), the voice mobile station attenuation code ($VMAC_S = VMAC_r$), the voice channel number ($ANALOG\_CHAN_S = ANALOG\_CHAN_r$), the SAT color code ($SCC_S = SCC_r$), and the message encryption mode indicator ($MEM_S = MEM_r$).
  - The mobile station shall set DTX_S to '00'.
  - If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.
  - The mobile station shall enter the Confirm Initial Voice Channel Task (see 2.6.4.2) with an origination indication.

+ If the analog channel type is not '00', the mobile station shall perform the following actions:
  - If the mobile supports narrow analog mode, the mobile station shall perform the following actions:
    ◊ The mobile station shall store the system identification ($SID_S = SID_r$), the voice mobile station attenuation code ($VMAC_S = VMAC_r$), the voice channel number ($ANALOG\_CHAN_S = ANALOG\_CHAN_r$), the message encryption mode indicator ($MEM_S = MEM_r$), the analog channel type ($AN\_CHAN\_TYPE_S = AN\_CHAN\_TYPE_r$) and the digital SAT code ($DSCC_S = DSCC\_MSB_r \times 4 + SCC_r$).
    ◊ The mobile station shall set DTX_S to '00'.

◊ If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled, shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.

◊ The mobile station shall enter the Confirm Initial Narrow Analog Voice Channel Task (see 2.6.5.2A of [22]) with an origination indication.

o If the mobile station does not support narrow analog mode, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported by the mobile station) and the mobile station shall remain in the *Mobile Station Origination Attempt Substate* of the *System Access State*.

- If $ASSIGN\_MODE_r$ equals '100', the mobile station shall perform the following actions:
  - The mobile station shall set CH_IND_S to '01'.
  - If $GRANTED\_MODE_r$ equals '00', and the multiplex option or radio configuration specified in the DEFAULT_CONFIG field is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in *Mobile Station Origination Attempt Substate*.
  - If $FREQ\_INCL_r$ equals '0', the mobile station shall perform the following actions:
    + The mobile station shall store the frame offset ($FRAME\_OFFSET_S$ = $FRAME\_OFFSET_r$), the message encryption mode indicator ($ENCRYPT\_MODE_S$ = $ENCRYPT\_MODE_r$), the granted mode ($GRANTED\_MODE_S$ = $GRANTED\_MODE_r$), and the default configuration ($DEFAULT\_CONFIG_S$ = $DEFAULT\_CONFIG_r$).
    + The mobile station shall set $SERV\_NEG_S$ to enabled.
    + If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ equal to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.
    + The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8.
    + The mobile station shall then enter the *Traffic Channel Initialization Substate* of the *Mobile Station Control on the Traffic Channel State*.
  - If $FREQ\_INCL_r$ equals '1', the mobile station shall perform the following actions:
    + If the band class is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.

+ If the band class is supported by the mobile station, the mobile station shall perform the following actions:
  - The mobile station shall store the frame offset ($FRAME\_OFFSET_S$ = $FRAME\_OFFSET_r$), the message encryption mode indicator ($ENCRYPT\_MODE_S$ = $ENCRYPT\_MODE_r$), the granted mode ($GRANTED\_MODE_S$ = $GRANTED\_MODE_r$), the default configuration ($DEFAULT\_CONFIG_S$ = $DEFAULT\_CONFIG_r$), the band class ($CDMABAND_S$ = $BAND\_CLASS_r$), and the Frequency Assignment ($CDMACH_S$ = $CDMA\_FREQ_r$).
  - The mobile station shall set $SERV\_NEG_S$ to enabled.
  - If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.
  - The mobile station shall initialize the CODE_CHAN_LIST as described in 2.6.8.
  - The mobile station shall then tune to the new Frequency Assignment and enter the *Traffic Channel Initialization Substate* of the *Mobile Station Control on the Traffic Channel State*.

• If $ASSIGN\_MODE_r$ equals '101', the mobile station shall perform the following actions:

– If $FREQ\_INCL_r$ equals '0', the mobile station shall perform the following actions:

+ If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
+ The mobile station shall set $CONFIG\_MSG\_SEQ_S$ and $ACC\_MSG\_SEQ_S$ to NULL (see 2.6.2.2) and shall set $PILOT\_PN_S$ to the pilot PN sequence offset of the strongest pilot in the list ($PILOT\_PN_r$).
+ If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set $SYS\_PAR\_MSG\_SEQ_S$, $NGHBR\_LST\_MSG\_SEQ_S$, $EXT\_NGHBR\_LST\_MSG\_SEQ_S$, $GEN\_NGHBR\_LST\_MSG\_SEQ_S$, $CHAN\_LST\_MSG\_SEQ_S$, $EXT\_CHAN\_LST\_MSG\_SEQ_S$, $EXT\_SYS\_PAR\_MSG\_SEQ_S$, $USER\_ZONE\_ID\_MSG\_SEQ_S$, $PRI\_NGHBR\_LST\_MSG\_SEQ_S$, $GLOB\_SERV\_REDIR\_MSG\_SEQ_S$, and $EXT\_GLOB\_SERV\_REDIR\_MSG\_SEQ_S$ to NULL.

+ If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set $EXT\_NGHBR\_LST\_MSG\_SEQ_S$, $GEN\_NGHBR\_LST\_MSG\_SEQ_S$, $EXT\_CHAN\_LST\_MSG\_SEQ_S$, $EXT\_SYS\_PAR\_MSG\_SEQ_S$, $USER\_ZONE\_ID\_MSG\_SEQ_S$, $PRI\_NGHBR\_LST\_MSG\_SEQ_S$, $GLOB\_SERV\_REDIR\_MSG\_SEQ_S$, $A41\_SYS\_PAR\_MSG\_SEQ_S$, $MC\_RR\_PAR\_MSG\_SEQ_S$, $UNIV\_NGBHR\_LST\_MSG\_SEQ_S$, and $EXT\_GLOB\_SERV\_REDIR\_MSG\_SEQ_S$ to NULL.

+ The mobile station shall set $PAGE\_CHAN_S$ to '1' and $PAGECH_S$ to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

+ The mobile station shall set $FCCCH\_CHAN_S$ to '1' and $FCCCH\_ID_S$ to the Primary Forward Common Control Channel. The mobile station shall then begin monitoring the Primary Forward Common Control Channel of the selected base station.

+ If $RESPOND_r$ is equal to '1', the mobile station shall perform the following:

  o If the *Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after receiving the *Channel Assignment Message*.

  o If the *Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Channel Assignment Message* has been sent and acknowledged.

– If $FREQ\_INCL_r$ equals '1', the mobile station shall perform the following actions:

+ If the band class is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.

+ If the band class is supported by the mobile station, the mobile station shall perform the following actions:

  o If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.

- The mobile station shall set CONFIG_MSG_SEQ$_S$ and ACC_MSG_SEQ$_S$ to NULL (see 2.6.2.2) and shall set PILOT_PN$_S$ to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN$_r$).
- If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ$_S$, NGHBR_LST_MSG_SEQ$_S$, EXT_NGHBR_LST_MSG_SEQ$_S$, GEN_NGHBR_LST_MSG_SEQ$_S$, CHAN_LST_MSG_SEQ$_S$, EXT_CHAN_LST_MSG_SEQ$_S$, EXT_SYS_PAR_MSG_SEQ$_S$, USER_ZONE_ID_MSG_SEQ$_S$, PRI_NGHBR_LST_MSG_SEQ$_S$, GLOB_SERV_REDIR_MSG_SEQ$_S$, and EXT_GLOB_SERV_REDIR_MSG_SEQ$_S$ to NULL.
- The mobile station shall store the band class (CDMABAND$_S$ = BAND_CLASS$_r$) and the Frequency Assignment (CDMACH$_S$ = CDMA_FREQ$_r$).
- The mobile station shall set PAGE_CHAN$_S$ to '1' and PAGECH$_S$ to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
- If RESPOND$_r$ is equal to '1', the mobile station shall perform the following:
  - If the *Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after receiving the *Channel Assignment Message*.
  - If the *Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Channel Assignment Message* has been sent and acknowledged.

4. *Data Burst Message*
5. *Extended Channel Assignment Message:* The mobile station shall process the message as follows:
   - If ASSIGN_MODE$_r$ equals '000', the mobile station shall perform the following actions:
     - The mobile station shall set CH_IND$_S$ to '01'.

- If $P\_REV\_IN\_USE_S$ is equal to or greater than six, the mobile station shall store the Forward Fundamental Channel Radio Configuration ($FOR\_FCH\_RC_S$ = $FOR\_FCH\_RC_r$) and the Reverse Fundamental Channel Radio Configuration ($REV\_FCH\_RC_S$ = $REV\_FCH\_RC_r$)
- If $FREQ\_INCL_r$ equals '0', the mobile station shall perform the following actions:
  + The mobile station shall store the frame offset ($FRAME\_OFFSET_S$ = $FRAME\_OFFSET_r$), the message encryption mode indicator ($ENCRYPT\_MODE_S$ = $ENCRYPT\_MODE_r$), the granted mode ($GRANTED\_MODE_S$ = $GRANTED\_MODE_r$), the default configuration ($DEFAULT\_CONFIG_S$ = $DEFAULT\_CONFIG_r$), and the occurrences of PILOT_PN and PWR_COMB for each included member of the Active Set.
  + The mobile station shall set $SERV\_NEG_S$ to enabled.
  + If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ equal to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.
  + The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8.
  + The mobile station shall set $FPC\_FCH\_INIT\_SETPT_S$ to $FPC\_FCH\_INIT\_SETPT_r$, $FPC\_FCH\_CURR\_SETPT_S$ to $FPC\_FCH\_INIT\_SETPT_S$, $FPC\_FCH\_FER_S$ to $FPC\_FCH\_FER_r$, $FPC\_FCH\_MIN\_SETPT_S$ to $FPC\_FCH\_MIN\_SETPT_r$, $FPC\_FCH\_MAX\_SETPT_S$ to $FPC\_FCH\_MAX\_SETPT_r$, and $FPC\_PRI\_CHAN_S$ to '0' if the mobile station supports any Radio Configuration greater than 2.
  + The mobile station shall set $FPC\_SUBCHAN\_GAIN_S$ to $FPC\_SUBCHAN\_GAIN_r$.
  + The mobile station shall set $REV\_FCH\_GATING\_MODE_S$ to $REV\_FCH\_GATING\_MODE_r$.
  + The mobile station shall set $REV\_PWR\_CNTL\_DELAY_S$ to $REV\_PWR\_CNTL\_DELAY_r$ if $REV\_PWR\_CNTL\_DELAY\_INCL_r$ is equal to '1'.
  + The mobile station shall set $RLGAIN\_ADJ_S$ to $RLGAIN\_ADJ_r$.
  + The mobile station shall then enter the *Traffic Channel Initialization Substate* of the *Mobile Station Control on the Traffic Channel State.*
- If $FREQ\_INCL_r$ equals '1', the mobile station shall perform the following actions:

+ If the band class is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.

+ If the band class is supported by the mobile station, the mobile station shall perform the following actions:

  o The mobile station shall store the frame offset ($FRAME\_OFFSET_S$ = $FRAME\_OFFSET_r$); the message encryption mode indicator ($ENCRYPT\_MODE_S$ = $ENCRYPT\_MODE_r$); the granted mode ($GRANTED\_MODE_S$ = $GRANTED\_MODE_r$); the default configuration ($DEFAULT\_CONFIG_S$ = $DEFAULT\_CONFIG_r$); the band class ($CDMABAND_S$ = $BAND\_CLASS_r$); the Frequency Assignment ($CDMACH_S$ = $CDMA\_FREQ_r$); and the occurrences of PILOT_PN and PWR_COMB_IND for each included member of the Active Set.

  o The mobile station shall set $SERV\_NEG_S$ to enabled.

  o The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8.

  o The mobile station shall set $FPC\_FCH\_INIT\_SETPT_S$ to $FPC\_FCH\_INIT\_SETPT_r$, $FPC\_FCH\_CURR\_SETPT_S$ to $FPC\_FCH\_INIT\_SETPT_S$, $FPC\_FCH\_FER_S$ to $FPC\_FCH\_FER_r$, $FPC\_FCH\_MIN\_SETPT_S$ to $FPC\_FCH\_MIN\_SETPT_r$, $FPC\_FCH\_MAX\_SETPT_S$ to $FPC\_FCH\_MAX\_SETPT_r$, and $FPC\_PRI\_CHAN_S$ to '0' if the mobile station supports any Radio Configuration greater than 2.

  o The mobile station shall set $FPC\_SUBCHAN\_GAIN_S$ to $FPC\_SUBCHAN\_GAIN_r$.

  o The mobile station shall set $RLGAIN\_ADJ_S$ to $RLGAIN\_ADJ_r$.

  o The mobile station shall set $REV\_FCH\_GATING\_MODE_S$ to $REV\_FCH\_GATING\_MODE_r$.

  o The mobile station shall set $REV\_PWR\_CNTL\_DELAY_S$ to $REV\_PWR\_CNTL\_DELAY_r$ if $REV\_PWR\_CNTL\_DELAY\_INCL_r$ is equal to '1'.

  o The mobile station shall then tune to the new Frequency Assignment and enter the *Traffic Channel Initialization Substate* of the *Mobile Station Control on the Traffic Channel State*.

– If $GRANTED\_MODE_r$ equals '00', and the multiplex option and radio configuration specified in the DEFAULT_CONFIG field is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.

- If GRANTED_MODE$_r$ equals '00' and DEFAULT_CONFIG$_r$ is not equal to '100', the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00001110' (RC does not match with DEFAULT_CONFIG$_r$) and shall remain in the *Mobile Station Origination Attempt Substate* if any of the following conditions is true:
  - FOR_FCH_RC$_r$ is not equal to the Radio Configuration associated with DEFAULT_CONFIG$_r$ (see Table 3.7.2.3.2.21-2).
  - REV_FCH_RC$_r$ is not equal to the Radio Configuration associated with DEFAULT_CONFIG$_r$ (see Table 3.7.2.3.2.21-2).
- If the mobile station does not support either of the Fundamental Channel Radio Configurations (FOR_FCH_RC or REV_FCH_RC), the mobile shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.

• If ASSIGN_MODE$_r$ equals '001', the mobile station shall perform the following actions:

- If FREQ_INCL$_r$ equals '0', the mobile station shall perform the following actions:
  - If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
  - The mobile station shall set CONFIG_MSG_SEQ$_S$ and ACC_MSG_SEQ$_S$ to NULL (see 2.6.2.2) and shall set PILOT_PN$_S$ to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN$_r$).
  - If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ$_S$, NGHBR_LST_MSG_SEQ$_S$, EXT_NGHBR_LST_MSG_SEQ$_S$, GEN_NGHBR_LST_MSG_SEQ$_S$, CHAN_LST_MSG_SEQ$_S$, EXT_CHAN_LST_MSG_SEQ$_S$, EXT_SYS_PAR_MSG_SEQ$_S$, USER_ZONE_ID_MSG_SEQ$_S$, PRI_NGHBR_LST_MSG_SEQ$_S$, GLOB_SERV_REDIR_MSG_SEQ$_S$, and EXT_GLOB_SERV_REDIR_MSG_SEQ$_S$ to NULL.
  - The mobile station shall set PAGE_CHAN$_S$ to '1' and PAGECH$_S$ to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
  - If RESPOND$_r$ is equal to '1', the mobile station shall perform the following:

- o If the *Extended Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after receiving the *Extended Channel Assignment Message*.
- o If the *Extended Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Extended Channel Assignment Message* has been sent and acknowledged.

– If $FREQ\_INCL_r$ equals '1', the mobile station shall perform the following actions:

+ If the band class is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.
+ If the band class is supported by the mobile station, the mobile station shall perform the following actions:
  - o If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
  - o The mobile station shall set $CONFIG\_MSG\_SEQ_S$ and $ACC\_MSG\_SEQ_S$ to NULL (see 2.6.2.2) and shall set $PILOT\_PN_S$ to the pilot PN sequence offset of the strongest pilot in the list ($PILOT\_PN_r$).
  - o If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set $SYS\_PAR\_MSG\_SEQ_S$, $NGHBR\_LST\_MSG\_SEQ_S$, $EXT\_NGHBR\_LST\_MSG\_SEQ_S$, $GEN\_NGHBR\_LST\_MSG\_SEQ_S$, $CHAN\_LST\_MSG\_SEQ_S$, $EXT\_CHAN\_LST\_MSG\_SEQ_S$, $EXT\_SYS\_PAR\_MSG\_SEQ_S$, $USER\_ZONE\_ID\_MSG\_SEQ_S$, $PRI\_NGHBR\_LST\_MSG\_SEQ_S$, $GLOB\_SERV\_REDIR\_MSG\_SEQ_S$, and $EXT\_GLOB\_SERV\_REDIR\_MSG\_SEQ_S$ to NULL. The mobile station shall store the band class ($CDMABAND_S = BAND\_CLASS_r$) and the Frequency Assignment ($CDMACH_S = CDMA\_FREQ_r$).
  - o The mobile station shall set $PAGE\_CHAN_S$ to '1' and $PAGECH_S$ to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
  - o If $RESPOND_r$ is equal to '1', the mobile station shall perform the following:

◊ If the *Extended Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after receiving the *Extended Channel Assignment Message*.

◊ If the *Extended Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Extended Channel Assignment Message* has been sent and acknowledged.

- If $ASSIGN\_MODE_r$ equals '010', the mobile station shall perform the following actions:
  - If the mobile station does not support analog operation in the requested band class, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.
  - If the mobile station supports analog operation in the requested band class, the mobile station shall perform the following actions:
    + If $RESPOND_r$ equals '1' and $USE\_ANALOG\_SYS_r$ equals '0', the mobile station shall enter the analog Initialization Task with an origination indication (see 2.6.1).
    + If $RESPOND_r$ equals '1' and $USE\_ANALOG\_SYS_r$ equals '1', the mobile station shall perform the following actions:
      o The mobile station shall set $SERVSYS_s$ to SYS_A if $ANALOG\_SYS_r$ is equal to '0', or set $SERVSYS_s$ to SYS_B if $ANALOG\_SYS_r$ is equal to '1'.
      o The mobile station shall then enter the analog Initialization Task with an origination indication (see 2.6.1).
- If $ASSIGN\_MODE_r$ equals '011', the mobile station shall perform the following actions:
  - If the mobile station does not support analog operation in the requested band class, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported by the mobile station) and the mobile station shall remain in the *Mobile Station Origination Attempt Substate*.
  - If the mobile station supports analog operation in the requested band class, the mobile station shall perform the following actions:
    + If the analog channel type is '00', the mobile station shall perform the following actions:

- The mobile station shall store the system identification ($SID_S = SID_r$), voice mobile station attenuation code ($VMAC_S = VMAC_r$), voice channel number ($ANALOG\_CHAN_S = ANALOG\_CHAN_r$), SAT color code ($SCC_S = SCC_r$), and message encryption mode indicator ($MEM_S = MEM_r$).
- The mobile station shall set DTX_S to '00'.
- If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.
- The mobile station shall enter the Confirm Initial Voice Channel Task (see 2.6.4.2) with an origination indication.

+ If the analog channel type is not '00', the mobile station shall perform the following actions:
  - If the mobile supports narrow analog mode, the mobile station shall perform the following actions:
    - ◊ The mobile station shall store the system identification ($SID_S = SID_r$), voice mobile station attenuation code ($VMAC_S = VMAC_r$), voice channel number ($ANALOG\_CHAN_S = ANALOG\_CHAN_r$), message encryption mode indicator ($MEM_S = MEM_r$), analog channel type ($AN\_CHAN\_TYPE_S = AN\_CHAN\_TYPE_r$) and the digital SAT code ($DSCC_S = DSCC\_MSB_r \times 4 + SCC_r$).
    - ◊ The mobile station shall set DTX_S to '00'.
    - ◊ If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.
    - ◊ The mobile station shall enter the Confirm Initial Narrow Analog Voice Channel Task (see 2.6.5.2A of [22]) with an origination indication.
  - If the mobile station does not support narrow analog mode, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported by the mobile station) and the mobile station shall remain in the *Mobile Station Origination Attempt Substate* of the *System Access State.*

• If $ASSIGN\_MODE_r$ equals '100', the mobile station shall perform the following actions:

– If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

- If $GRANTED\_MODE_r$ equals '00' and the multiplex option and radio configuration specified in the $DEFAULT\_CONFIG_r$ field are not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and shall remain in the *Mobile Station Origination Attempt Substate.*
- If $GRANTED\_MODE_r$ equals '00' and $DEFAULT\_CONFIG_r$ is not equal to '100', the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00001110' (RC does not match with DEFAULT_CONFIG) and shall remain in the *Mobile Station Origination Attempt Substate* if one of the following conditions is true:
  + FOR_RC_r is not equal to the Radio Configuration associated with $DEFAULT\_CONFIG_r$ as specified in Table 3.7.2.3.2.21-2.
  + REV_RC_r is not equal to the Radio Configuration associated with $DEFAULT\_CONFIG_r$ as specified in Table 3.7.2.3.2.21-2.
- If the mobile station does not support either of the Radio Configurations (FOR_RC or REV_RC), the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate.*
- If CH_IND_r = '01' and the mobile station does not support the Fundamental Channel, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate.*
- If CH_IND_r = '10' and the mobile station does not support the Dedicated Control Channel, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate.*
- If CH_IND_r = '11' and the mobile station does not support the Dedicated Control Channel and Fundamental Channel concurrently, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate.*
- If $FREQ\_INCL_r$ equals '1' and if the band class ($BAND\_CLASS_r$) is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate.*
- If the mobile station does not send a Mobile Station Reject Order as specified above, it shall continue to perform the actions specified below.
- If $FREQ\_INCL_r$ equals '1', the mobile station shall set

+ $CDMABAND_S = BAND\_CLASS_r$
+ $CDMACH_S = CDMA\_FREQ_r$

- The mobile station shall store the bypass indicator ($BYPASS\_ALERT\_ANSWER_S = BYPASS\_ALERT\_ANSWER_r$).
- The mobile station shall store granted mode ($GRANTED\_MODE_S = GRANTED\_MODE_r$)
- The mobile station shall store the default configuration ($DEFAULT\_CONFIG_S = DEFAULT\_CONFIG_r$).
- The mobile station shall store the Forward Traffic Channel Radio Configuration ($FOR\_RC_S = FOR\_RC_r$) and the Reverse Traffic Channel Radio Configuration ($REV\_RC_S = REV\_RC_r$).
- The mobile station shall store the frame offset ($FRAME\_OFFSET_S = FRAME\_OFFSET_r$).
- The mobile station shall store the message encryption mode indicator ($ENCRYPT\_MODE_S = ENCRYPT\_MODE_r$).
- The mobile station shall store the Forward power control subchannel relative gain ($FPC\_SUBCHAN\_GAIN_S = FPC\_SUBCHAN\_GAIN_r$).
- The mobile station shall set $RLGAIN\_ADJ_S$ to $RLGAIN\_ADJ_r$.
- The mobile station shall set $REV\_FCH\_GATING\_MODE_S$ to $REV\_FCH\_GATING\_MODE_r$.
- The mobile station shall set $REV\_PWR\_CNTL\_DELAY_S$ to $REV\_PWR\_CNTL\_DELAY_r$ if $REV\_PWR\_CNTL\_DELAY\_INCL_r$ is equal to '1'.
- If $3XFL\_1XRL\_INCL_r$ is equal to '1', the mobile station shall set $1XRL\_FREQ\_OFFSET_S$ to $1XRL\_FREQ\_OFFSET_r$.
- The mobile station shall store the channel indicator ($CH\_IND_S = CH\_IND_r$) and the mobile station shall perform the following actions:
  + If CH_IND_r equals '01', the mobile station shall set $FPC\_FCH\_INIT\_SETPT_S$ to $FPC\_FCH\_INIT\_SETPT_r$, $FPC\_FCH\_CURR\_SETPT_S$ to $FPC\_FCH\_INIT\_SETPT_S$, $FPC\_FCH\_FER_S$ to $FPC\_FCH\_FER_r$, $FPC\_FCH\_MIN\_SETPT_S$ to $FPC\_FCH\_MIN\_SETPT_r$, $FPC\_FCH\_MAX\_SETPT_S$ to $FPC\_FCH\_MAX\_SETPT_r$, and $FPC\_PRI\_CHAN_S$ to '0' if the mobile station supports any Radio Configuration greater than 2. Then for each included member of the Active Set, the mobile station shall store the following:
    - Set the PILOT_PN field to $PILOT\_PN_r$.
    - Set the ADD_PILOT_REC_INCL field to $ADD\_PILOT\_REC\_INCL_r$. If $ADD\_PILOT\_REC\_INCL_r$ equals '1', the mobile station shall store the following:

- ◊ Set the PILOT_REC_TYPE field of PILOT_REC to PILOT_REC_TYPE$_r$.
- ◊ If PILOT_REC_TYPE$_r$ equals '000', the mobile station shall set the TD_POWER_LEVEL field of PILOT_REC to TD_POWER_LEVEL$_r$ and set the TD_MODE field of PILOT_REC to TD_MODE$_r$.
- ◊ If PILOT_REC_TYPE$_r$ is equal to '001', the mobile station shall
  - Set the AUX_PILOT_QOF field of PILOT_REC to QOF$_r$.
  - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSH$_r$ with the Walsh Code length specified by WALSH_LENGTH$_r$.
- ◊ If PILOT_REC_TYPE$_r$ is equal to '010', the mobile station shall:
  - Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOF$_r$.
  - Set the AUX_PILOT_TD_WALSH_CODE field of PILOT_REC to AUX_TD_WALSH$_r$ with the Walsh Code length specified by WALSH_LENGTH$_r$.
  - Set the AUX_TD_POWER_LEVEL field of PILOT_REC to AUX_TD_POWER_LEVEL$_r$.
  - Set the TD_MODE field of PILOT_REC to TD_MODE$_r$.
- ◊ If PILOT_REC_TYPE$_r$ is equal to '011', the mobile station shall:
  - Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT$_r$.
  - Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1$_r$.
  - Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2$_r$.
- ◊ If PILOT_REC_TYPE$_r$ is equal to '100', the mobile station shall:
  - Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT$_r$.
  - Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1$_r$.
  - Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2$_r$.
  - Set the AUX_PILOT_QOF field of PILOT_REC to QOF$_r$.
  - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSH$_r$ with the Walsh Code length specified by WALSH_LENGTH$_r$.

- If $ADD\_INFO\_INCL1_r$ is equal to '1', set the AUX_PILOT_QOF1 field of PILOT_REC to $QOF1_r$ and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to $AUX\_PILOT\_WALSH1_r$ with the Walsh Code length specified by $WALSH\_LENGTH1_r$; otherwise, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to $AUX\_PILOT\_WALSH_r$ with the Walsh Code length specified by $WALSH\_LENGTH_r$.
- If $ADD\_INFO\_INCL2_r$ is equal to '1', set the AUX_PILOT_QOF2 field of PILOT_REC to $QOF2_r$ and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to $AUX\_PILOT\_WALSH2_r$ with the Walsh Code length specified by $WALSH\_LENGTH2_r$; otherwise, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to $AUX\_PILOT\_WALSH_r$ with the Walsh Code length specified by $WALSH\_LENGTH_r$.

o Set the PWR_COMB_IND field to $PWR\_COMB\_IND_r$.

o Set the CODE_CHAN_FCH field to $CODE\_CHAN\_FCH_r$.

o Set the QOF_MASK_ID_FCH field to $QOF\_MASK\_ID\_FCH_r$.

+ If CH_IND_r equals '01' and $3X\_FCH\_INFO\_INCL_r$ equals to '1', for each included member of the Active Set, the mobile station store the following:

o If $3X\_FCH\_LOW\_INCL_r$ equals '1', set the QOF_MASK_ID_FCH_LOW field to $QOF\_MASK\_ID\_FCH\_LOW_r$ and the CODE_CHAN_FCH_LOW field to $CODE\_CHAN\_FCH\_LOW_r$. Otherwise, set the QOF_MASK_ID_FCH_LOW field to $QOF\_MASK\_ID\_FCH_r$ and the CODE_CHAN_FCH_LOW to $CODE\_CHAN\_FCH_r$.

o If $3X\_FCH\_HIGH\_INCL_r$ equals '1', set the QOF_MASK_ID_FCH_HIGH field to $QOF\_MASK\_ID\_FCH\_HIGH_r$ and the CODE_CHAN_FCH_HIGH field to $CODE\_CHAN\_FCH\_HIGH_r$. Otherwise, set the QOF_MASK_ID_FCH_HIGH field to $QOF\_MASK\_ID\_FCH_r$ and the CODE_CHAN_FCH_HIGH to $CODE\_CHAN\_FCH_r$.

+ If CH_IND_r equals '10', the mobile station shall set $FPC\_DCCH\_INIT\_SETPT_S$ to $FPC\_DCCH\_INIT\_SETPT_r$, $FPC\_DCCH\_CURR\_SETPT_S$ to $FPC\_DCCH\_INIT\_SETPT_S$, $FPC\_DCCH\_FER_S$ to $FPC\_DCCH\_FER_r$, $FPC\_DCCH\_MIN\_SETPT_S$ to $FPC\_DCCH\_MIN\_SETPT_r$, $FPC\_DCCH\_MAX\_SETPT_S$ to $FPC\_DCCH\_MAX\_SETPT_r$, and $FPC\_PRI\_CHAN_S$ to '1' if the mobile station supports any Radio Configuration greater than 2. Then for each included member of the Active Set, the mobile station shall store the following:

  - Set the PILOT_PN to $PILOT\_PN_r$.
  - Set the ADD_PILOT_REC_INCL field to ADD_PILOT_REC_INCL. If ADD_PILOT_REC_INCL is equal to '1', the mobile station shall store the following:
    - Set the PILOT_REC_TYPE field of PILOT_REC to $PILOT\_REC\_TYPE_r$.
    - If $PILOT\_REC\_TYPE_r$ equals '000', the mobile station shall set the TD_POWER_LEVEL field of PILOT_REC to $TD\_POWER\_LEVEL_r$ and set the TD_MODE field of PILOT_REC to TD_MODE_r.
    - If $PILOT\_REC\_TYPE_r$ is equal to '001', the mobile station shall
      - Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.
      - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to $AUX\_PILOT\_WALSH_r$ with the Walsh Code length specified by $WALSH\_LENGTH_r$.
    - If $PILOT\_REC\_TYPE_r$ is equal to '010', the mobile station shall:
      - Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOF_r.
      - Set the AUX_PILOT_TD_WALSH_CODE field of PILOT_REC to $AUX\_TD\_WALSH_r$ with the Walsh Code length specified by $WALSH\_LENGTH_r$.
      - Set the AUX_TD_POWER_LEVEL field of PILOT_REC to $AUX\_TD\_POWER\_LEVEL_r$.
      - Set the TD_MODE field of PILOT_REC to TD_MODE_r.
    - If $PILOT\_REC\_TYPE_r$ is equal to '011', the mobile station shall:
      - Set the SR3_PRIMARY_PILOT field of PILOT_REC to $SR3\_PRIMARY\_PILOT_r$.
      - Set the SR3_PILOT_POWER1 field of PILOT_REC to $SR3\_PILOT\_POWER1_r$.
      - Set the SR3_PILOT_POWER2 field of PILOT_REC to $SR3\_PILOT\_POWER2_r$.
    - If $PILOT\_REC\_TYPE_r$ is equal to '100', the mobile station shall:

- Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT$_r$.
- Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1$_r$.
- Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2$_r$.
- Set the AUX_PILOT_QOF field of PILOT_REC to QOF$_r$.
- Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSH$_r$ with the Walsh Code length specified by WALSH_LENGTH$_r$.
- If ADD_INFO_INCL1$_r$ is equal to '1', set the AUX_PILOT_QOF1 field of PILOT_REC to QOF1$_r$ and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1$_r$ with the Walsh Code length specified by WALSH_LENGTH1$_r$; otherwise, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF$_r$ and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH$_r$ with the Walsh Code length specified by WALSH_LENGTH$_r$.
- If ADD_INFO_INCL2$_r$ is equal to '1', set the AUX_PILOT_QOF2 field of PILOT_REC to QOF2$_r$ and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH2$_r$ with the Walsh Code length specified by WALSH_LENGTH2$_r$; otherwise, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF$_r$ and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH$_r$ with the Walsh Code length specified by WALSH_LENGTH$_r$.

o Set the PWR_COMB_IND field to PWR_COMB_IND$_r$.

o Set the CODE_CHAN_FCH field to CODE_CHAN_FCH$_r$.

o Set the QOF_MASK_ID_FCH field to QOF_MASK_ID_FCH$_r$.

o Set the DCCH_INCL field to DCCH_INCL$_r$. If DCCH_INCL$_r$ equals '1', the mobile station shall store the following:

◊ Set the CODE_CHAN_DCCH field to CODE_CHAN_DCCH$_r$.

◊ Set the QOF_MASK_ID_DCCH field to QOF_MASK_ID_DCCH$_r$.

+ If CH_IND$_r$ equals '10' and 3X_DCCH_INFO_INCL$_r$ equals to '1', for each included member of the Active Set, the mobile station shall store the following:

- o If $3X\_DCCH\_LOW\_INCL_r$ equals '1', set the $QOF\_MASK\_ID\_DCCH\_LOW_r$ and the $CODE\_CHAN\_DCCH\_LOW_r$. Otherwise, set the $QOF\_MASK\_ID\_DCCH\_LOW$ field to $QOF\_MASK\_ID\_FCH_r$ and the $CODE\_CHAN\_DCCH\_LOW$ to $CODE\_CHAN\_FCH_r$.
- o If $3X\_DCCH\_HIGH\_INCL_r$ equals '1', set the $QOF\_MASK\_ID\_DCCH\_HIGH_r$ and the $CODE\_CHAN\_DCCH\_HIGH_r$. Otherwise, set the $QOF\_MASK\_ID\_DCCH\_HIGH$ field to $QOF\_MASK\_ID\_FCH_r$ and the $CODE\_CHAN\_DCCH\_HIGH$ to $CODE\_CHAN\_FCH_r$.

+ If CH_IND_r equals '11', the mobile station shall set $FPC\_FCCH\_INIT\_SETPT_S$ to $FPC\_FCH\_INIT\_SETPT_r$, $FPC\_FCH\_CURR\_SETPT_S$ to $FPC\_FCH\_INIT\_SETPT_S$, $FPC\_FCH\_FER_S$ to $FPC\_FCH\_FER_r$, $FPC\_FCH\_MIN\_SETPT_S$ to $FPC\_FCH\_MIN\_SETPT_r$, $FPC\_FCH\_MAX\_SETPT_S$ to $FPC\_FCH\_MAX\_SETPT_r$, $FPC\_DCCH\_INIT\_SETPT_S$ to $FPC\_DCCH\_INIT\_SETPT_r$, $FPC\_DCCH\_CURR\_SETPT_S$ to $FPC\_DCCH\_INIT\_SETPT_S$, $FPC\_DCCH\_FER_S$ to $FPC\_DCCH\_FER_r$, $FPC\_DCCH\_MIN\_SETPT_S$ to $FPC\_DCCH\_MIN\_SETPT_r$, $FPC\_DCCH\_MAX\_SETPT_S$ to $FPC\_DCCH\_MAX\_SETPT_r$ and $FPC\_PRI\_CHAN_S$ to $FPC\_PRI\_CHAN_r$. Then for each included member of the Active Set, the mobile station shall store the following:

  - o Set the PILOT_PN to $PILOT\_PN_r$.
  - o Set the ADD_PILOT_REC_INCL field to ADD_PILOT_REC. If ADD_PILOT_REC_INCL is equal to '1', the mobile station shall store the following:
    - ◊ Set the PILOT_REC_TYPE field of PILOT_REC to $PILOT\_REC\_TYPE_r$.
    - ◊ If $PILOT\_REC\_TYPE_r$ equals '000', the mobile station shall set the TD_POWER_LEVEL field of PILOT_REC to $TD\_POWER\_LEVEL_r$ and set the TD_MODE field of PILOT_REC to TD_MODE_r.
    - ◊ If $PILOT\_REC\_TYPE_r$ is equal to '001', the mobile station shall
      - Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.
      - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to $AUX\_PILOT\_WALSH_r$ with the Walsh Code length specified by $WALSH\_LENGTH_r$.
    - ◊ If $PILOT\_REC\_TYPE_r$ is equal to '010', the mobile station shall:
      - Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOF_r.

- Set the AUX_PILOT_TD_WALSH_CODE field of PILOT_REC to $AUX\_TD\_WALSH_r$ with the Walsh Code length specified by $WALSH\_LENGTH_r$.
- Set the AUX_TD_POWER_LEVEL field of PILOT_REC to $AUX\_TD\_POWER\_LEVEL_r$.
- Set the TD_MODE field of PILOT_REC to TD_MODE_r.

◊ If $PILOT\_REC\_TYPE_r$ is equal to '011', the mobile station shall:

- Set the SR3_PRIMARY_PILOT field of PILOT_REC to $SR3\_PRIMARY\_PILOT_r$.
- Set the SR3_PILOT_POWER1 field of PILOT_REC to $SR3\_PILOT\_POWER1_r$.
- Set the SR3_PILOT_POWER2 field of PILOT_REC to $SR3\_PILOT\_POWER2_r$.

◊ If $PILOT\_REC\_TYPE_r$ is equal to '100', the mobile station shall:

- Set the SR3_PRIMARY_PILOT field of PILOT_REC to $SR3\_PRIMARY\_PILOT_r$.
- Set the SR3_PILOT_POWER1 field of PILOT_REC to $SR3\_PILOT\_POWER1_r$.
- Set the SR3_PILOT_POWER2 field of PILOT_REC to $SR3\_PILOT\_POWER2_r$.
- Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.
- Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to $AUX\_PILOT\_WALSH_r$ with the Walsh Code length specified by $WALSH\_LENGTH_r$.
- If $ADD\_INFO\_INCL1_r$ is equal to '1', set the AUX_PILOT_QOF1 field of PILOT_REC to $QOF1_r$ and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to $AUX\_PILOT\_WALSH1_r$ with the Walsh Code length specified by $WALSH\_LENGTH1_r$; otherwise, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to $AUX\_PILOT\_WALSH_r$ with the Walsh Code length specified by $WALSH\_LENGTH_r$.

- If $ADD\_INFO\_INCL2_r$ is equal to '1', set the AUX_PILOT_QOF2 field of PILOT_REC to $QOF2_r$ and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to $AUX\_PILOT\_WALSH2_r$ with the Walsh Code length specified by $WALSH\_LENGTH2_r$; otherwise, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to $AUX\_PILOT\_WALSH_r$ with the Walsh Code length specified by $WALSH\_LENGTH_r$

o Set the PWR_COMB_IND field to $PWR\_COMB\_IND_r$

o Set the CODE_CHAN_FCH field to $CODE\_CHAN\_FCH_r$.

o Set the QOF_MASK_ID_FCH field to $QOF\_MASK\_ID\_FCH_r$.

o Set the CODE_CHAN_DCCH field to $CODE\_CHAN\_DCCH_r$.

o Set the QOF_MASK_ID_DCCH field to $QOF\_MASK\_ID\_DCCH_r$.

+ If CH_IND_r equals '11' and $3X\_FCH\_INFO\_INCL_r$ equals to '1', for each included member of the Active Set, the mobile station store the following:

o If $3X\_FCH\_LOW\_INCL_r$ equals '1', set the QOF_MASK_ID_FCH_LOW field to $QOF\_MASK\_ID\_FCH\_LOW_r$ and the CODE_CHAN_FCH_LOW field to $CODE\_CHAN\_FCH\_LOW_r$. Otherwise, set the QOF_MASK_ID_FCH_LOW field to $QOF\_MASK\_ID\_FCH_r$ and the CODE_CHAN_FCH_LOW to $CODE\_CHAN\_FCH_r$.

o If $3X\_FCH\_HIGH\_INCL_r$ equals '1', set the QOF_MASK_ID_FCH_HIGH field to $QOF\_MASK\_ID\_FCH\_HIGH_r$ and the CODE_CHAN_FCH_HIGH field to $CODE\_CHAN\_FCH\_HIGH_r$. Otherwise, set the QOF_MASK_ID_FCH_HIGH field to $QOF\_MASK\_ID\_FCH_r$ and the CODE_CHAN_FCH_HIGH to $CODE\_CHAN\_FCH_r$.

+ If CH_IND_r equals '11' and $3X\_DCCH\_INFO\_INCL_r$ equals to '1', for each included member of the Active Set, the mobile station store the following:

o If $3X\_DCCH\_LOW\_INCL_r$ equals '1', set the QOF_MASK_ID_DCCH_LOW field to $QOF\_MASK\_ID\_DCCH\_LOW_r$ and the CODE_CHAN_DCCH_LOW field to $CODE\_CHAN\_DCCH\_LOW_r$. Otherwise, set the QOF_MASK_ID_DCCH_LOW field to $QOF\_MASK\_ID\_FCH_r$ and the CODE_CHAN_DCCH_LOW to $CODE\_CHAN\_FCH_r$.

1 o If $3X\_DCCH\_HIGH\_INCL_r$ equals '1', set the
2 $QOF\_MASK\_ID\_DCCH\_HIGH_r$ field to $QOF\_MASK\_ID\_DCCH\_HIGH_r$
3 and the CODE_CHAN_DCCH_HIGH field to
4 $CODE\_CHAN\_DCCH\_HIGH_r$. Otherwise, set the
5 $QOF\_MASK\_ID\_DCCH\_HIGH$ field to $QOF\_MASK\_ID\_FCH_r$ and the
6 CODE_CHAN_DCCH_HIGH to $CODE\_CHAN\_FCH_r$.

7 – The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8,
8 and shall set $SERV\_NEG_S$ to enabled.

9 – If $FREQ\_INCL_r$ equals '1', the mobile station shall then tune to the new
10 frequency assignment.

11 – The mobile station shall then enter the *Traffic Channel Initialization*
12 *Substate* of the *Mobile Station Control on the Traffic Channel State*.

13 6. *Feature Notification Message:* If $RELEASE_r$ is equal to '1', the mobile station shall
14 enter the *Mobile Station Idle State* or the *System Determination Substate* of the
15 *Mobile Station Initialization State* with a release indication (see 2.6.1.1).

16 7. *Intercept Order:* The mobile station shall enter the *Mobile Station Idle State*.

17 8. *Local Control Order*

18 9. *Lock Until Power-Cycled Order:* The mobile station shall disable its transmitter and
19 record the reason for the *Lock Until Power-Cycled Order* in the mobile station's
20 semi-permanent memory ($LCKRSN\_P_{S-p}$ equals the least significant four bits of
21 $ORDQ_r$). The mobile station should notify the user of the locked condition. The
22 mobile station shall enter the *System Determination Substate* of the *Mobile Station*
23 *Initialization State* with a lock indication (see 2.6.1.1), and shall not enter the
24 *System Access State* again until after the next mobile station power-up or until it
25 has received an *Unlock Order*. This requirement shall take precedence over any
26 other mobile station requirement specifying entry to the *System Access State*.

27 10. *Maintenance Required Order:* The mobile station shall record the reason for the
28 *Maintenance Required Order* in the mobile station's semi-permanent memory
29 ($MAINTRSN_{S-p}$ equals the least significant four bits of $ORDQ_r$). The mobile station
30 shall remain in the unlocked condition. The mobile station should notify the user
31 of the maintenance required condition.

32 11. *PACA Message:* If $P\_REV\_IN\_USE_S$ is less than or equal to four and the mobile
33 station does not support PACA capability, the mobile station shall send a *Mobile*
34 *Station Reject Order* with the ORDQ field set to '00000110' (message requires a
35 capability that is not supported by the mobile station); otherwise, the mobile
36 station shall process the message as follows:

37 • If $PACA_S$ is equal to disabled, the mobile station shall perform the following
38 actions:

39 – If the purpose of the message is to respond to an *Origination Message*
40 ($PURPOSE_r$ is equal to '0000'), the mobile station shall perform the following
41 actions:

+ The mobile station shall set $PACA_S$ to enabled and shall set $PACA\_SID_S$ to SID_S.

+ The mobile station shall set the PACA state timer to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of $PACA\_TIMEOUT_S$.

+ The mobile station should indicate to the user that the call has been queued as a PACA call, and should indicate the current queue position (Q_POS_r) of the call.

+ The mobile station shall enter the *Mobile Station Idle State*.

– If the purpose of the message is to cancel the PACA call ($PURPOSE_r$ is equal to '0011'), the mobile station shall perform the following actions:

+ The mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

+ The mobile station shall enter the *Mobile Station Idle State*.

– If the purpose of the message is anything else ($PURPOSE_r$ is not equal to '0000' or '0011'), the mobile station shall ignore the message. The mobile station shall remain in the *Mobile Station Origination Attempt Substate*.

• If $PACA_S$ is equal to enabled, the mobile station shall perform the following actions:

– If the purpose of the message is to respond to an *Origination Message* ($PURPOSE_r$ is equal to '0000'), the mobile station shall perform the following actions:

+ The mobile station should indicate to the user that the PACA call is still queued, and should indicate to the user the current queue position (Q_POS_r) of the call.

+ The mobile station shall set the PACA state timer to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of $PACA\_TIMEOUT_S$.

+ The mobile station shall enter the *Mobile Station Idle State*.

– If the purpose of the message is to provide the queue position of the PACA call ($PURPOSE_r$ is equal to '0001'), the mobile station shall perform the following actions:

+ The mobile station should indicate to the user that the PACA call is still queued, and should indicate the current queue position (Q_POS_r) of the call.

+ The mobile station shall set the PACA state timer to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of $PACA\_TIMEOUT_S$.

+ The mobile station shall enter the *Mobile Station Idle State*.

- If the purpose of the message is to instruct the mobile station to re-originate the PACA call ($PURPOSE_r$ is equal to '0010'), the mobile station shall remain in the *Mobile Station Origination Attempt Substate*.
- If the purpose of the message is to cancel the PACA call ($PURPOSE_r$ is equal to '0011'), the mobile station shall perform the following actions:
  + The mobile station shall set $PACA_s$ to disabled, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
  + The mobile station shall enter the *Mobile Station Idle State*.

12. *Registration Accepted Order:*
    - If $ORDQ_r$ = '00000101', the mobile station shall set $ROAM\_INDI_s$ = $ROAM\_INDI_r$ and should display the roaming condition.
    - If $ORDQ_r$ = '00000111', the mobile station shall perform the following
      - The mobile station shall set $ROAM\_INDI_s$ = $ROAM\_INDI_r$ and should display the roaming condition.
      - The mobile station shall set $SIG\_ENCRYPT\_MODE_s$ = $SIG\_ENCRYPT\_MODE_r$ and start encrypting the signaling messages sent on r-dsch and r-csch using the encryption algorithm specified by $SIG\_ENCRYPT\_MODE_r$ (see Table 3.7.4.5-1) with the key-size specified by KEY_SIZE_r (see Table 3.7.4.5-2).
      - If USE_NEW_KEY is set to '1' the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in $KEY_s[KEY\_SEQ\_NEW_{s\text{-}p}]$. The mobile station shall increment the variable $KEY\_SEQ\_NEW_{s\text{-}p}$ by one (modulo 16).
      - If USE_NEW_KEY is set to '0' then the mobile station shall use $KEY[KEY\_SEQ_r]$ as the session key.

13. *Registration Rejected Order:* This order indicates that normal service is not available on this system. The mobile station shall disable the full-TMSI timer. If the received order specifies to delete the TMSI (ORDQ = '00000100'), the mobile station shall set all the bits of the $TMSI\_CODE_{s\text{-}p}$ to '1'. The mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a registration rejected indication (see 2.6.1.1).

14. *Release Order:* If $NDSS\_ORIG_s$ is equal to enabled, the mobile station shall set $NDSS\_ORIG_s$ to disabled, and should indicate to the user that the call origination has been canceled. The mobile station shall enter the *Mobile Station Idle State* or the *System Determination Substate* of the *Mobile Station Initialization State* with a release indication (see 2.6.1.1). If the mobile station enters the *Mobile Station Idle State*, and if $PACA_s$ is equal to enabled, the mobile station shall set $PACA_s$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

15. *Reorder Order:* If $NDSS\_ORIG_S$ is equal to enabled, the mobile station shall set $NDSS\_ORIG_S$ to disabled, and should indicate to the user that the call origination has been canceled. If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled. The mobile station shall enter the *Mobile Station Idle State*.

16. *Retry Order:* This order indicates that the origination is rejected and specifies the time before which the mobile station shall not send an *Origination Message* containing the same packet data Service Option. The mobile station shall process the order as follows:

    - If $RETRY\_TYPE_r$ is equal to '000', the mobile station shall set $RETRY\_DELAY_S$[RETRY_TYPE] to 0, where RETRY_TYPE is equal to '001', '010', or '011'.
    - If $RETRY\_TYPE_r$ is equal to '001', then the mobile station shall perform the following:
        - If $RETRY\_DELAY_r$ is equal to '00000000', then the mobile station shall set $RETRY\_DELAY_S[RETRY\_TYPE_r]$ to 0.
        - If $RETRY\_DELAY_r$ is not equal to '00000000' the mobile station shall set $RETRY\_DELAY_S$ as follows:
            + If the most significant bit of the $RETRY\_DELAY_r$ is '0', set $RETRY\_DELAY\_UNIT_S$ to 1000ms. If the most significant bit of the $RETRY\_DELAY_r$ is '1', set $RETRY\_DELAY\_UNIT_S$ to 60000ms.
            + The mobile station shall set $RETRY\_DELAY\_VALUE_S$ to the seven least significant bits of $RETRY\_DELAY_r$.
            + The mobile station shall store the next system time 80 ms boundary + $RETRY\_DELAY\_VALUE_S \times RETRY\_DELAY\_UNIT_S$ ms as $RETRY\_DELAY_S[RETRY\_TYPE_r]$.
            + If $NDSS\_ORIG_S$ is equal to enabled, the mobile station shall set $NDSS\_ORIG_S$ to disabled, and should indicate to the user that the call origination has been canceled. If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
            + The mobile station shall enter the *Mobile Station Idle State*.

17. *Security Mode Command Message:* The mobile station shall process the message as follows:

    - The mobile station shall set $SIG\_ENCRYPT\_MODE_S$ to $SIG\_ENCRYPT\_MODE_r$.

- If USE_NEW_KEY is set to '1' the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in $KEY_S[KEY\_SEQ\_NEW_{S\text{-}p}]$. The mobile station shall then increment the variable $KEY\_SEQ\_NEW_{S\text{-}p}$ by one (modulo 16).
- If USE_NEW_KEY is set to '0' then the mobile station shall use $KEY[KEY\_SEQ_r]$ as the session key.

18. *Service Redirection Message:* The mobile station shall process the message as follows:
    - If the mobile station is directed to an unsupported operation mode or band class, the mobile station shall respond with a *Mobile Station Reject Order* with ORDQ equal to '00000110' (message requires a capability that is not supported by the mobile station).
    - If DELETE $TMSI_r$ is equal to '1', the mobile station shall set all the bits of $TMSI\_CODE_{S\text{-}p}$ to '1'.
    - The mobile station shall disable the full-TMSI timer.
    - The mobile station shall set $RETURN\_IF\_FAIL_S = RETURN\_IF\_FAIL_r$.
    - If $RECORD\_TYPE_r$ is '00000000', the mobile station shall set $RETURN\_IF\_FAIL_S = RETURN\_IF\_FAIL_r$, and enter the *System Determination Substate* of the *Mobile Station Initialization State* with an NDSS off indication (see 2.6.1.1); otherwise:
        - if $REDIRECT\_TYPE_r$ is '0', the mobile station shall store the redirection record received in the message as $REDIRECT\_REC_S$ and shall enter the System Determination Substate of the *Mobile Station Initialization State* with a redirection indication (see 2.6.1.1).
        - if $REDIRECT\_TYPE_r$ is '1', the mobile station shall store the redirection record received in the message as $REDIRECT\_REC_S$ and shall enable $NDSS\_ORIG_S$, and shall record the dialed digits. The mobile station shall enter the System Determination Substate of the *Mobile Station Initialization State* with a redirection indication (see 2.6.1.1).
19. *SSD Update Message:* The mobile station shall respond to the message as specified in 2.3.12.1.5.
20. *Status Request Message:* The mobile station shall disable the *System Access State* timer and respond to the message. If $P\_REV\_IN\_USE_S$ is less than or equal to three, the mobile station shall respond with a *Status Response Message*. If $P\_REV\_IN\_USE_S$ is greater than three, the mobile station shall respond with an *Extended Status Response Message*. If the message does not specify any qualification information ($QUAL\_INFO\_TYPE_r$ is equal to '00000000'), the mobile station shall include the requested information records in the response. If the message specifies a band class ($QUAL\_INFO\_TYPE_r$ is equal to '00000001'), the mobile station shall only include the requested information records for the specified band class ($BAND\_CLASS_r$) in the response. If the message specifies a band class

Mobile Station				Base Station
• User initiates priority call.				
• Sends *Origination Message.*	>	Access Channel	>	• Determines that no Traffic Channels are available and that call is a priority call.
• Indicates to user that priority call has been queued as a PACA call, and indicates queue position. Uses non-slotted mode operation while waiting for channel assignment.	<	Paging Channel	<	• Sends *PACA Message* to inform user that priority call has been queued as a PACA call, and to indicate queue position.
• Indicates updated queue position to user.	<	Paging Channel	<	• Sends *PACA Message* periodically to update PACA call queue position.
	<	Paging Channel	<	• Sends *PACA Message* to instruct mobile station to re-originate PACA call.
• Sends *Origination Message* again.	>	Access Channel	>	• Sets up Traffic Channel.
• Indicates to user that PACA call is proceeding, sets up Traffic Channel. • Receives N_{5m} consecutive valid frames.	<	Paging Channel	<	• Sends *Channel Assignment Message.*
• Begins sending Traffic Channel preamble.				• Acquires the Reverse Traffic Channel.
• Begins transmitting null Traffic Channel data.	<	Forward Traffic Channel	<	• Sends *Base Station Acknowledgment Order.*
• Begins processing primary traffic in accordance with Service Option 1.	<	Forward Traffic Channel	<	• Sends *Service Connect Message.*
• Sends *Service Connect Completion Message.*	>	Reverse Traffic Channel	>	
(Continued on next page)				*(Continued on next page)*

Figure B-9. PACA Call Processing (Part 1 of 2)

Mobile Station				Base Station
(Continued from previous page)				*(Continued from previous page)*
Optional • Sends *Origination Continuation Message.*	>	Reverse Traffic Channel	>	Optional
• Alerts user with distinct PACA alert. • User answers call. • Stops alerting. • Sends *Connect Order.*	<	Forward Traffic Channel	<	• Sends *Alert With Information Message* (distinct PACA alert). • Dials out PACA call.
	>	Reverse Traffic Channel	>	
Optional • Applies ring back in audio path.	<	Forward Traffic Channel	<	Optional • Sends *Alert With Information Message* (ring back tone).
Optional • Removes ring back from audio path.	<	Forward Traffic Channel	<	Optional • Sends *Alert With Information Message* (tones off).
(User conversation)				*(User conversation)*

Figure B-9. PACA Call Processing (Part 2 of 2)

Figure B-10 illustrates call processing operations for failure recovery for hard handoff on the same frequency. Figure B-11 illustrates call flow for failure recovery for inter-frequency handoff when the mobile station does not search the Candidate Frequency. Figures B-12 and B-13 show the call flow for mobile-assisted inter-frequency handoff (handoff preceded by searching of the Candidate Frequency Search Set by the mobile station), where the search is started by using the *Candidate Frequency Search Control Message.* Figures B-14 and B-15 illustrate call flow for inter-frequency handoff when failure recovery also includes searching the Candidate Frequency Search Set. In the periodic search examples (Figures B-13 and B-15), it is assumed that the mobile station performs a search of the Candidate Frequency Search Set in a single visit to the Candidate Frequency. Figures B-16 and B-17 illustrate the interaction of inter-frequency handoff operations with an ongoing periodic search of the Candidate Frequency Search Set.